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ABSTRACT

This volume is the result of the application of the Health Services Mobility Study (HSMS) curriculum design method in radiologic technology and is presented in conjunction with volume 1, which reports the task analysis results. Volume 2 contains job-related behavioral curriculum objectives for the aide, technician, and technologist levels in diagnostic radiology, including patient care and quality assurance. It presents guidelines for using the curriculum objectives for educational ladders to parallel the job ladders recommended in volume 1. This volume also presents basic concepts regarding the educational process, describes the HSMS method, presents suggestions for program design and instruction, discusses the use of the curriculum objectives as a source from which the content of proficiency tests can be selected, and presents 351 curriculum objectives. Volume 1 and the task descriptions in the several volumes of Research Report No. 7 (all available separately) are recommended adjuncts to be used with this volume. (Author/BL)

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USING TASK DATA IN DIAGNOSTIC RADIOLOGY

Research Report No. 8

Volume 2

CURRICULUM OBJECTIVES FOR RADIOLOGIC TECHNOLOGY

by
Eleanor Gilpatrick and Christina Gullion
Health Services Mobility Study

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The research reported herein was conducted under a contract with the Employment and Training Administration, U.S. Department of Labor, under the authority of the Comprehensive Employment Training Act of 1973. Researchers are encouraged to express their own judgments freely. Interpretations or viewpoints stated in this document do not necessarily represent the official position or policy of the U.S. Department of Labor, the New York State Department of Health, or the City University of New York.

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CHAPTER 6

ABOUT CURRICULUM OBJECTIVES

INTRODUCTION

This volume represents the first attempt by the Health Services Mobility Study to prepare curriculum objectives from HSMS task data and to design curriculum guidelines. The HSMS method of curriculum design has been applied to the aide, technician, and technologist levels in diagnostic radiology. This volume contains behavioral curriculum objectives for these job levels and presents guidelines for educational ladders to parallel the job ladders recommended in Volume 1 of this report.

Chapters 6 through 9 constitute Volume 2 of this report. Volume 1, its appendixes, and the task descriptions of Research Report No. 7 are necessary adjuncts to this volume.[1]

This chapter is an introduction to the HSMS curriculum design method. It presents the basic concepts and definitions, a brief summary of the method, and describes the curriculum objectives. Chapter 7 is addressed to the educator. It presents and describes the HSMS curriculum guidelines including educational objectives, curriculum outlines, suggestions for instructional planning, and the use of curriculum objectives for curriculum analysis. The chapter is also addressed to the proficiency test developer. One of the sections discusses HSMS curriculum objectives as a source from which the content of proficiency test items can be selected to ensure job relevance and content validity.

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[1] Gilpatrick, Eleanor, Task Descriptions in Diagnostic Radiology (four volumes), Research Report No. 7, New York: Health Services Mobility Study, 1976. (Volumes 2 and 3 cover the tasks represented in the curriculum objectives presented in Chapter 9 of Research Report No. 8.)

Chapter 8 presents the curriculum outlines for the educational ladders. It suggests an ordering of the curriculum objectives to parallel the job ladder sequences recommended in Volume 1. Table 3 in Chapter 8 serves as an overall index of the curriculum objectives. Chapter 9 presents the 351 curriculum objectives in order by number.

CONCEPTS AND DEFINITIONS

In 1973, Christina Gullion and Eleanor Gilpatrick developed the HSMS curriculum design method. Working Paper No. 11 reported the basic theory and the method as it was first developed, along with a review of the literature in the field.[2] A summary of the method appears in Technical Report No. 13.[3] This section reviews the basic concepts and definitions that underlie the HSMS curriculum design method.

Educational Ladders

An educational ladder is a related, sequential set of educational courses or programs that provides for continuous educational movement to parallel the movement along a job ladder from its entry-level job to its highest-level job. An educational ladder provides exit credentials for each intermediary job that is reached at the end of each program in the sequence. Such sequences do not require repetition of course work when an individual reenters the educational process to continue up the ladder

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[2] Gullion, Christina, and Gilpatrick, Eleanor, The Design of Curriculum Guidelines for Educational Ladders Using Task Data, Working Paper No. 11, New York: Health Services Mobility Study, July, 1973.

[3] Gilpatrick, Eleanor, An Introduction to the Work of the Health Services Mobility Study as of April, 1975, Technical Report No. 13, New York: Health Services Mobility Study, 1975.

(aside from the necessary reinforcement or refresher work needed to bring the student up to date in competence).

For such upward mobility to be possible, the student must be able to build on his or her knowledge and skills in cumulative steps. The HSMS task analysis and curriculum design methods assume that a deep, broad understanding of a given knowledge area can be reached in successive, incremental steps, beginning with a shallow understanding and limited amounts of detailed information. The methods further assume that skills are learned through practice, and can also be learned in incremental steps. The concept that skills and knowledges are teachable and additive is embodied in the HSMS skill and knowledge scales and makes it possible to design job ladders and educational ladders.

Education versus Training

The words "training" and "education" are usually used interchangeably in everyday speech, but important distinctions exist which differentiate an educational ladder approach to curricula from a discrete training approach to curricula.

Purely technical "training" is provided for most entry-level jobs, and is the form in which preparation for many emerging specialties first appears. The training teaches students what to do in the immediate context and under the specific conditions of the given institution or the given equipment. It is generally designed to provide rapid results for immediate needs; as a result, the performer is able to carry out routine procedures by rote.[4]

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[4] We do not mean to equate the experience of clinical practice with technical "training." Clinical practice can be consciously designed to promote educational objectives.

Such preparation is related to work performance, but it is not adequate for use in connection with job ladders; it cannot be the basis for educational ladders. Training for the rote performance of narrowly conceived task procedures (which is offered by many who design curricula for paraprofessionals), does not properly prepare the student for higher level work or learning.

1. "Training" does not prepare the student to deal with contingencies such as emergencies that may arise, since the student does not learn why he or she is doing a given act or what principles are involved.
2. "Training" does not prepare the student to apply the activity in a different work situation where, if the principles were understood, the same learning would apply, or to a different set of materials or equipment where, if the process or reasons were understood, the same procedures would apply. Thus, the student's learning is not transferable laterally.
3. "Training" does not prepare the student with the conceptual groundwork upon which later learning for higher level tasks must be based. Rote learning is not additive and is not transferable vertically.

Degree-granting programs usually stress the disciplines upon which technical work is founded and appear to provide implicitly for transferability of learning. However, academic programs often contain course requirements that are irrelevant, obsolete, or taught in a manner so removed from the contexts in which they are to be applied that they are not useful preparation for work. Such programs require the vitality of relevant content and proper clinical experiences.

The HSMS approach is that occupational preparation must be job relevant, must emphasize transferability of learning, and must be presented in additive units. This approach is reflected in our task data and is an underlying tenet of our curriculum design methodology. We assume that:

1. Education and training should permit *transferability* of knowledge across specific work contexts or as technology changes; the student must be prepared to deal with contingencies or emergencies. This requires that knowledges needed in work performance be comprehended in the context of the larger disciplines in which they are found. The HSMS Knowledge Classification System makes this possible.

2. Education and training should present *academic disciplines* and *general skills* in contexts which will be *relevant* to the jobs for which they are preparation by referring to the work behaviors in which they are to be applied, including clinical training consciously utilized to this end. The HSMS task descriptions make this possible.

3. Educational and training programs should present the skills and knowledges in a manner that is, and in units that are, *additive*, so that each level provides the groundwork that will be needed for later learning. The HSMS scales make this possible.

Curriculum versus Instruction

The words "curriculum" and "instruction" are also often used interchangeably. The reader who does not make a distinction might expect this volume to offer lesson plans for a program in radiologic technology. It does not. We offer curriculum objectives for radiologic technology arranged in sequences. We subscribe to the distinction between curriculum and instruction as stated by Dr. Mauritz Johnson, Jr.:

> ...curriculum is a *structured series of intended learning outcomes*. Curriculum prescribes (or at least anticipates) the *results* of instruction. It does not prescribe the *means*, i.e., the activities, materials, or even the instructional content, to be used in achieving the results....[5]

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[5] Johnson, Jr., Mauritz M., "Definitions and Models in Curriculum Theory," in *Educational Theory*, Vol. 17 (April, 1967), p. 130.

> ...curriculum has reference to what it is intended that students learn, not what it is intended that they do [in the classroom].[6]

According to Dr. Johnson, curriculum development is a systematic process which results in an end product, the curriculum. It is a process which includes two chief activities: the first is the selection of curriculum items from the available sources; the second is the structuring of the selected content.[7] Thus, there is a relationship between curriculum and instruction. Curriculum guides instruction. By implication, instruction deals with the student's experience in the classroom. It covers what is taught and presents what is to be learned.

Curriculum Objectives and Guidelines

The units of curriculum are curriculum objectives, i.e., Johnson's structured series of intended learning outcomes expressed as statements. The HSMS statements are written as behavioral objectives. Our earlier literature review indicated the attractiveness of behavioral objectives as applied to instructional preparation. We concluded that the same characteristics could be used in the preparation of HSMS curriculum objectives. The HSMS curriculum objectives describe the behavior that is to be manifested, the situations in which the behavior is to be manifested, and the content which must be mastered for the behavior to be manifested.

Each HSMS curriculum objective is stated as an intended learning outcome in the language of the tasks to be performed; there are three types of objectives: skill, knowledge, and procedural.

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[6] Ibid.

[7] Op. cit., p. 131.

The skill and knowledge objectives state in detail the content which must be learned in order to perform the tasks. These objectives specify the type of skill or the area of knowledge to be learned, the level of competence, and the task activities in which the content must be demonstrated or applied. By presenting the work behavior in combination with the skill or knowledge discipline in the curriculum objectives, we assure both job relevance and an academic context, and we focus on the desired end product. The procedural objectives cover the sequences in which the tasks must be performed; they are referenced to the tasks; thus the task descriptions become useful as instructional materials.

Using the HSMS task data and analytic techniques, we are able to specify a set of educational objectives (desiderata), offer a structured set of intended learning outcomes (curriculum objectives), and arrange these to provide an educational ladder. We are able to offer suggestions for instruction and a set of instructional materials, namely, the task descriptions. We refer to this total educational contribution to an occupational area as curriculum guidelines.

THE HSMS CURRICULUM DESIGN METHOD

The method used to develop and write curriculum objectives and arrange them into educational ladder sequences has been simplified since it was first presented in Working Paper No. 11 and Technical Report No. 13. Most of the preparatory work is now done at the time that the tasks are scaled for their skill and knowledge requirements. At that stage the HSMS job analysts scale each task for the highest scale value of each skill or knowledge category needed to perform each task. The analysts are then required to mark or indicate the part or parts of each task description in which each skill or knowledge is applied or manifested at the scale value selected.

If, for certain skills such as Decision Making on Quality, a comment must be written to explain how the skill is manifested, since it is implicit rather than explicit in the language of the task, the comment is written on the task description sheet at the time the scaling is done.

In the case of knowledge categories, a task's scale value for the category depends on the amount or breadth of detailed knowledge needed as well as the depth of understanding required. Therefore, we have the analysts mark all the parts of the task that require any knowledge in the given category.

We use two sets of task descriptions. One is annotated for skill scale values and the other for knowledge category values. These two sets of annotated task descriptions are the basic inputs to the process of writing curriculum objectives.

Curriculum Objective Coverage

Once the task analysis is completed and the tasks have been assigned to factors and job levels, we are able to determine how many curriculum objectives will be required. Each job level within a task factor is considered to be a discrete occupational and educational unit, and we treat each unit separately; we also treat each factor separately. This provides program designers with the option of combining or separating the curriculum objectives for given skills and knowledges as appropriate to the structure of their programs. For example, the six units covered by curriculum objectives in this report relate to four factors and three job levels.[8] A traditional program for the radiologic technologist may combine them all, even though we recommend a sequence of programs. Our intent is that the curriculum objectives be usable for a single job level as well as for an educational ladder, and for multi-factor occupations as well as for single factor jobs.

We write a curriculum objective for every skill and every knowledge category at each scale value required for any of the tasks covered by an occupational-educational unit. We are able to determine how many curriculum objectives will be required by referring to the MATRIX array for each occupational unit.[9]

Figure 14 is a hypothetical representation of a MATRIX array.[10] It contains nine tasks in a single factor, arranged into three job levels. The figure serves to illustrate certain points about the construction of curriculum objectives. Figure 14 has three occupational units. At level 1, Skill 1 is required by three tasks. It is required at scale value 1.0 for two tasks, and at 2.0 for one task. This results in two curriculum

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[8] The six occupational-educational units covered by curriculum objectives are as follows:

Factor IV, patient care, level 1 (aide)
Factor IV, patient care, level 2 (technician)
Factor VI, quality assurance, level 1 (aide)
Factor VI, quality assurance, level 2 (technician)
Factor III, radiologic technology, level 3 (technologist)
Non-factor A, administration, level 3 (technologist).

[9] The MATRIX program and array is described in Chapter 5 of Volume 1 of this report.

[10] This is the same as Figure 9 in Chapter 5 of Volume 1.

Figure 14. MODEL OF "MATRIX" ARRAY OF SKILLS AND KNOWLEDGES BY TASK AND JOB LEVEL

Skills and Knowledge Categories	FACTOR I LADDER								
	Level 1			Level 2			Level 3		
	Task 1	Task 2	Task 3	Task 4	Task 5	Task 6	Task 7	Task 8	Task 9
Skill 1	1.0	1.0	2.0	2.0	2.0	4.0	4.0	9.0	9.0
* Skill 2	1.0	2.0	2.0	2.0	2.0	2.0	4.0	7.0	9.0
Skill 3		2.0	2.0	4.5		4.5	2.0	7.0	7.0
* Knowledge 1				1.5	1.5	1.5	7.0	1.5	7.0
Knowledge 2				3.5	3.5	2.5	5.5	2.5	9.0
Skill 4				5.0	5.0	5.0	5.0		5.0
Knowledge 3							5.0	6.0	
* Knowledge 4							3.5	9.0	9.0
Knowledge 5							8.5	8.5	8.5
Knowledge 6							3.5	7.5	7.5
Knowledge 7							7.0	7.0	9.0
Knowledge 8							7.0		8.5

* Asterisk denotes variables that determined the factor.

1. Tasks are listed from left to right in ascending order of loading on "task factor."
2. Skills and knowledge categories are listed from top to bottom in order of appearance in the task array.
3. Tasks are assigned to levels based on increasing numbers of skills and knowledges required and their scale values.
4. Not every skill or knowledge appears in all subsequent, higher-level tasks.
5. Scale values do not necessarily rise from level to level.
6. Scale values may vary within a level.

objectives. Skill 2 would have two curriculum objectives at level 1. Skill 3 would have one curriculum objective at level 1. No matter how many tasks require a given skill or knowledge category at a given scale value, if they are all in the same job level and factor, one curriculum objective is written. By the same token, even if only one task requires a given knowledge category at a certain scale value, a separate curriculum objective is written.

Separate curriculum objectives are written for each occupational unit. In Figure 14, Skill 1 is needed at scale value 2.0 in level 1 and also in level 2. Two curriculum objectives would be written. For Figure 14, there would be a total of 37 curriculum objectives. Level 1 would have 5; level 2 would have 8; and level 3 would have 24. If there were a second factor, there would be separate curriculum objectives for each occupational level in the factor.

Curriculum Objective Formats

Figure 15 is a blank curriculum objective sheet. A similar, briefer form is used for additional pages when curriculum objectives need more than one page. (Chapter 9 presents the actual curriculum objectives; these can also be referred to in order to follow this description.) The basic identification information is filled out at the top of each curriculum objective sheet as follows:

1. Type of Objective: Whether skill, knowledge, or procedural.
2. Factor: The number of the task factor (III, IV, VI or A for this report).

Figure 15. BLANK CURRICULUM OBJECTIVE SHEET

CURRICULUM OBJECTIVE SHEET Page 1 of

Type of Objective ____________________ Factor ________ No. ________

Skill or Knowledge Category ____________________ Scale Value ____

Occupation ____________________ Level ____

Refers to Task Code No(s).: ____________________

____

____

Is there Cross Reference? ...Yes( ) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to

3. No.: The curriculum objective number. As in the case of tasks, the curriculum objectives are numbered for identification purposes, but the number carries no other special significance.

4. Skill or Knowledge Category: The name of the skill or the code number of the knowledge category.

5. Scale value: The scale value at which all the content of the curriculum objective is to be rated.

6. Occupation: The name of the job; in this case names such as patient care aide, quality assurance technician, radiologic technologist, etc.

7. Level: The HSMS job level of the occupation and the tasks covered.

8. Refers to Task Code No(s).: The task code numbers of all the tasks that have been scaled at this scale value for this skill or knowledge category and whose language is reflected in the curriculum objective.

9. Is there Cross Reference?: Yes, if the same skill or knowledge category appears in any other curriculum objective at a lower scale value, at the same scale value, at a higher scale value, or if the skill or knowledge category appears in tasks higher on the job ladder than is represented in the curriculum objectives (such as levels 4 and 5). The footnotes tell the user the numbers of the objectives that are at lower, the same, or higher scale values, or state the higher job level.

Curriculum Objective Content

All the curriculum objectives start out with a classic opening for a behavioral objective: "A graduate of the program at this educational level must be able to...". They then continue with the content of the curriculum objective. A prototype for each type of curriculum objective has been developed. Each utilizes the HSMS skills or Knowledge Classification System, the scales, and the task descriptions. The curriculum objectives for skills and knowledge categories are written so that the reader is not required to know the HSMS method in order to understand what is being referred to by the skill or knowledge category names or the scale values involved.

Each HSMS skill objective has a prototype introductory paragraph that summarizes the kind of behavior that characterizes the skill, regardless of level. Most skill objectives end with a prototype paragraph that begins, "To accomplish this, the student must be able to...". These indicate a context for demonstration of mastery. Between the opening and closing paragraphs in any given skill objective, we present the language of all the task descriptions within the occupational-educational unit that demonstrate the given scale value for the skill.

The prototypes for the skill objectives are written so that the user can understand from the language what aspects of each skill must be consciously taught and consciously learned. It is not necessary to learn to use the HSMS skill scales to deal with the various scale values. Since the task language has already been the basis for the task's rating at the given scale value, the task language presented in the objective demonstrates the scale value. (Appendix C of Volume I presents the scales for the interested reader.)

We present only one skill objective for a given skill scale value within any given occupational unit regardless of the variety of task contexts in which it is needed. On the other hand, if the same kind of activity appears in more than one task, a single content statement is given. This makes it possible to consolidate a good deal of task material when many tasks all call for a skill to be manifested in the same way. We list the appropriate Task Code Numbers after each content statement.

There is one prototype for all the knowledge objectives. The prototype first names the knowledge category and any relevant explanations of what is covered by the category. This is followed by the task language which indicates how the knowledge is applied. There is a closing paragraph which indicates the context for demonstrating mastery. The knowledge objective prototype has been designed so that the user need not refer to the Knowledge Classification System or know how to use the knowledge scale. The scale value has already been determined by the depth of understanding and the breadth of detailed information needed in the discipline named in order to accomplish the task activities listed. Thus, the task activities themselves embody the scale value.

As in the case of the skill objectives, an objective for a knowledge category at a given scale value covers all the task activities that require the category at that value regardless of how different the activities are, or how different the particular components of the subject area are. We consolidate language that is similar across tasks listed for the given knowledge objective. There are as many statements on a given knowledge objective as there are different descriptions of activities that require the knowledge of the given category at the scale value involved.

There is one procedural objective for each occupational-educational unit. It lists all the tasks of the unit and describes the intended learning outcomes with respect to the tasks as a whole. The prototype calls for the student to demonstrate knowledge of the proper sequence of events and contingencies associated with each task, proper use of all equipment not already covered by skill or knowledge objectives, and application of non-scalable knowledge such as arithmetic when it is called for in conjunction with mathematical knowledge or symbolic skills. The task descriptions of Research Report No. 7 are the references for these objectives; this transforms the task descriptions into instructional materials, and places the evaluation of the student's mastery in a clinical setting or a clinical simulation.

Writing Curriculum Objectives

When we write the curriculum objectives we work with one skill or knowledge category at a time. We start with the curriculum objectives for the lowest scale value of a skill or knowledge and write all the objectives for that value, one for each occupational unit that requires it. For example, in Figure 14, we would write one curriculum objective for Skill 1 at 1.0, then two curriculum objectives for Skill 1 at 2.0, then two for Skill 1 at 4.0, and then one for Skill 1 at 9.0. By proceeding in this way, we are able to pay attention to the additive nature of the curriculum objectives; we are able to use similar language for similar activities; and we are able to check any remaining computer errors or discrepancies in the skill and knowledge scale data. We work first with the skills, then the knowledge categories, and finally with the procedural objectives.

The HSMS curriculum analysts work with the annotated task descriptions. This stage of the work requires the analysts to identify all the annotated task language for a given skill or knowledge category at a given scale value for all the tasks listed for a given curriculum objective. If more than one section of a task is annotated, all are considered and represented. For a given curriculum objective all task activities that use or are described in the same language are grouped, and one statement is written. This is followed by the tasks' code numbers. Additional statements are written until all the tasks listed for the objective are represented in the content section of the objective. We attempt to stay as much as possible with the language used in the task descriptions. We also attempt to present the content statement in such a way that the relevant context for the activity is apparent. These statements mention the behavior required, sometimes mention the standards, but rarely indicate the substantive material that must be learned by the student in order to master the behavior. That is left to instructional planning.

The curriculum objectives are presented in Chapter 9 with the skill objectives first, the knowledge objectives next, and, finally, the procedural objectives. The skill objectives are presented in the order of their HSMS scale numbers (as in Appendix A of Volume 1). The knowledge objectives are presented by knowledge category in the order of their Knowledge Classification System code numbers. This retains the structural relationship among categories; the categories subsumed under broad disciplines appear after their parent disciplines.

Within each skill or knowledge category the objectives are presented in rising order by scale value. For example, all the objectives for Skill 1 at 1.0 are presented before any at 2.0 or those for any other skill. Within a scale value, the objectives in Chapter 9 are presented first for Factor IV, then Factor VI, then Factor III, and, finally, Non-factor A.

Presenting the objectives in order by scale value makes it easy for the program designer or the instructor to compare and/or combine the content of curriculum objectives at the same or different levels, or to anticipate the content at higher levels. Since tasks are scaled for their highest required scale values, lower level behavior required for a given task can be identified by examination of curriculum objectives for lower scale values of the given skill or knowledge category.

Table 3 of Chapter 8 is an index of the curriculum objectives. It lists each skill and knowledge category in order by scale value. Next to each, one can determine the task factor and job level that requires the skill or knowledge category at the given scale value. Then the number of the curriculum objective which applies is given. From this listing the user can determine which curriculum objectives are of interest.

CHAPTER 7

CURRICULUM GUIDELINES FOR RADIOLOGIC TECHNOLOGY

The HSMS curriculum guidelines for radiologic technology are a series of inputs to the various stages of the educational process. This chapter presents the guidelines after a brief discussion about the authors' view of the stages of the educational process.

In Working Paper No. 11, Gullion and Gilpatrick presented a model that elaborates five stages of the developmental process in education.[1] The first stage is selection of educational objectives. This is when the educational institution decides what it will teach and what goals and values it will try to achieve. The second stage is curriculum development, in which curriculum content is selected and structured. The educational objectives are inputs to this process. The third stage is program design, in which the curriculum is arranged into sequences and courses to fit the needs of the institution's program and time requirements, and when credit units are assigned. Curriculum is the major input to program design, but the institutional framework is also an important input.

The fourth stage is instructional planning. This is when the teacher takes the "intended learning outcomes" of the curriculum arranged into programs and courses and devises sequences of instruction. The instructor adds additional content to facilitate learning, selects instructional units and materials, and plans presentations. The fifth stage is instruction. This is when the students and teacher interact within the teaching environment, and where learning outcomes are achieved to one degree or another. One can add a sixth stage, evaluation. Learning outcomes may or may not correspond to educational, curriculum, or instructional objectives. The evaluation of each stage in terms of the prior stage and the resulting feedbacks turn the model into an educational system.

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[1] *Op. cit.*, Chapter 2.

The HSMS method of task analysis and curriculum design results in materials for most of the stages of the educational process. We demonstrate this in diagnostic radiology, covering jobs from the entry level to the technologist level. The entire package is the HSMS curriculum guidelines for radiolgoic technology. The HSMS curriculum guidelines include the specification of educational objectives, behaviorally stated curriculum objectives, and curriculum outlines which sequence the curriculum objectives for educational ladder programs. The guidelines also include suggestions for instruction; the HSMS task descriptions are available as instructional materials. Finally, we provide suggestions for the use of curriculum objectives for evaluation, for the construction of proficiency tests, and for curriculum analysis.

EDUCATIONAL OBJECTIVES

Selection of educational objectives is the first stage in the process of education and helps determine curriculum development. The objectives determine whether the institution will train students for an occupation, will emphasize social values of one sort or another, will meet external requirements for licensure or accreditation, and will turn out students who are oriented to social needs and/or personal gain. The decision to have educational ladders is also the selection of an educational objective.

HSMS opted by its very existence to become associated with a specific set of educational objectives. These included a commitment to occupational preparation, particularly for health occupations. We chose to prepare curricula in the form of educational ladders which, in turn, means opting for curricula which combine both training and education. We undertook the writing of normative task descriptions in order to fulfill the objectives of having curricula emphasize high quality performance and patient safety. Below are the six educational objectives we adopted as part of our curriculum outlines for radiologic technology:

1. Performers of tasks involving ionizing radiation should be trained to provide maximum safety to themselves, their co-workers, and their patients by the use of adequate, appropriate shielding for all procedures.

2. Performers of tasks involving ionizing radiation should be trained to minimize the exposure to radiation of the general population by always considering how to minimize the exposure required while still obtaining all the diagnostic information needed, and by minimizing the need to repeat exposures due to inadequate performance of the tasks.

3. Performers of tasks involving patients in the diagnostic use of ionizing radiation should be trained to give sensitive, sympathetic attention to the patient, to understand the fears, anxieties, and pain experienced by the patient, and should be trained to recognize the needs of patients for reassurance, information, and dignity.

4. Performers of tasks involving patients in the diagnostic use of ionizing radiation should be trained to carry out their tasks so as to minimize the possibility of transmitting infection or communicable diseases by practicing appropriate sterile, antiseptic, and/or decontamination procedures before, during, and after examinations.

5. The curriculum objectives for radiologic technology should present curriculum content in the context of formal disciplines to connect task content with underlying principles and concepts, so that the learning is transferable, both laterally to new work situations and vertically to the next educational level. The curriculum objectives should

also present the job relevance of the academic subject matter by showing how the skills and knowledge disciplines are applied in task activities.

6. The curriculum for radiologic technology should be divisible into programs that provide for upward mobility through educational ladders; these should eliminate redundancy and should offer transferable educational credits.

CURRICULUM DEVELOPMENT

Once the educational objectives are selected, curriculum development is the next stage in the educational process. Curriculum development involves the selection of curriculum content and the structuring of the content into an organized set of intended learning outcomes. The educational objectives are inputs to curriculum development and determine the criteria for the selection of content.

The content we select is the behavior represented in the task descriptions, the disciplines of the Knowledge Classification System, and the skills. Our first four educational objectives can be met through the content of the task descriptions if the descriptions are used as instructional materials. These descriptions determine the skill and knowledge scale values for the tasks and are then carried into the curriculum objectives. When the task content is combined with the HSMS skills and knowledge categories in the curriculum objectives, transferable and job relevant curricula (the fifth objective) is achieved.

The inherent relationship among disciplines is manifested in the HSMS Knowledge Classification System; the additive nature of the skill and knowledge content is reflected in the HSMS scales; the association of disciplines in a given occupation determines the HSMS factor results. The factors, in turn, are translated into job ladders; the ladders result in the occupational-educational reference units for the curriculum objectives. Thus, the HSMS curriculum objectives are a structured series of intended learning outcomes. When these are arranged in the form of educational ladders, the sixth educational objective is made possible. The curriculum outlines presented in Chapter 8 are recommendations for educational ladder sequences and are inputs to the next stage of the educational process, program design.

PROGRAM DESIGN

Program design is the division and arrangement of a curriculum into sequences and/or units appropriate to the content, time requirements, and structure of the educational institution. Program design is done within a specific institutional setting, sometimes by an administrative office, sometimes by a committee of the faculty, and rarely by the individual teacher, who is usually concerned with instructional planning for a given course.

The program designer must take into consideration the facilities and faculty available to carry out a program and the accreditation requirements which may govern credit hour distributions for various content areas. He or she may combine or separate areas of content into courses or sequences. The program designer takes admission requirements into account, and may plan introductory, remedial, or "enabling" courses which prepare students to deal with the material specified in the curriculum.

The program designer must also take account of the way in which the institution organizes or plans to organize learning experiences. One institution may create a modularized curriculum in which content is organized and taught in short sections, using pre- and post-tests of competencies to determine individual student progress. Another may stress a traditional credit-hour semester; still another may provide bilingual education for an ethnically mixed student body. A given program may or may not be divided into courses; an educational ladder may be made up of a sequence of programs. Institutionally determined conditions such as academic credits, degrees, certification, or other "milestone" divisions of content set the framework within which programs are designed. These institutional arrangements have implications for the way in which curriculum content is organized.

The HSMS proposals for structuring of curriculum objectives into educational ladders can have an impact on the sequential arrangement of courses or the assignment of curriculum units to programs. The HSMS suggestions for radiologic technology make it possible to arrange curricula into one or more educational ladders. One ladder begins in patient care, and another in quality assurance. Each ladder would begin at the entry (aide) level, rise to the technician level, go on to radiologic technology at the technologist level, and then each could proceed to the supervisor-educator level and/or to the curriculum for radiation physicist.

Figure 16, below, presents the job of radiologic technologist in its job ladder framework and in relation to higher- and lower-level jobs. We have written curriculum objectives with this structure in mind. The six units in Figure 16 at levels 1, 2 and 3 are the occupational-educational reference units for the curriculum objectives. However, the curriculum objectives can be combined in any other way to suit the educational objectives of any given educational institution. This includes the traditional view that the radiologic technologist is a single occupation incorporating all the tasks in the patient care, quality assurance, radiologic technology, and administrative factors at levels 1, 2 and 3.

Figure 16. JOBS COVERED BY HSMS CURRICULUM OBJECTIVES

Job Levels	Factors			
	IV: Patient Care	III: Radiologic Technology	IV: Quality Assurance	A: Administration
5			Radiation Physicist*	
4	Chief Patient Care Technologist*	Chief Radiologic Technologist*		Supervisor*
3		Radiologic Technologist		Administrative Technologist
2	Patient Care Technician		Quality Assurance Technician	
1	Patient Care Aide		Quality Assurance Aide	

* Jobs at levels 4 and 5 are referred to in the cross-reference footnotes in the curriculum objectives, but curriculum objectives have not been written for these levels.

We suggest that the curriculum for radiologic technology should be arranged to parallel one or more job ladders, and that the first one or two steps should require no more than the equivalent of half the preparation now required for the licensure or certification of radiologic technologists. Students should be able to proceed beyond the technologist level to levels 4 and/or 5 as in Figure 16. The program should prepare individuals in a sequence which qualifies them to exit after completion of early course work to take aide and/or technician jobs in patient care or quality assurance, or to continue to the technologist level. Students should be allowed to enter or reenter the program upon successful demonstration of mastery of the objectives at the earlier levels.

Curriculum Outlines

To assist the program designer to achieve the sequencing we suggest, we present the curriculum outline tables in Chapter 8. They offer several alternative approaches to program design in radiologic technology. This section tells the reader how to use the tables. It can be omitted until the reader has reason to work with the outlines.

Table 3 in Chapter 8 is an index of the 351 curriculum objectives for the six occupational-educational units of radiologic technology. The table shows the number of the curriculum objective for a given factor and job level for each skill or knowledge category at each scale value.

Tables 4 and 5 in Chapter 8 are curriculum outlines for two educational ladders. Table 4 assumes that the radiologic technologist job is reached in three stages: from aide to technician in quality assurance, to technologist in radiologic technology. Table 5 also assumes that the radiologic technologist job is reached in three stages: from aide to technician in patient care, to technologist in radiologic technology.

Each outline shows the Curriculum Objective Number associated with each skill and knowledge category by scale value. The information is arranged in three major columns: one for the aide, one for the technician, and one for the technologist. Within each of the three major columns one finds the Task Code Numbers associated with a given curriculum objective.

The column for the aide level ends when all the skill and knowledge objectives required for level 1 are presented. The table continues with a list of curriculum objectives for skills and knowledge required at level 2, but not at level 1, and then presents those required only at level 3. Each column ends with the number of a procedural objective and shows all the Task Code Numbers associated with the given occupational-educational unit.

The program designer can use each column separately to design three separate programs. Reading down the column for level 1 provides the numbers for all the curriculum objectives for the aide. Reading down the column for level 2 provides the numbers for all the curriculum objectives for the technician. Reading down the column for level 3 provides the numbers of all the curriculum objectives for the radiologic technologist. Since these columns also provide the task numbers associated with each curriculum objective, the tables are indexes of the task descriptions that can be used as instructional materials.

By reading across the rows, the program designer can determine whether a given skill or knowledge objective has been preceded by or will be followed by curriculum objectives for the given skill or knowledge at the same, higher, or lower scale values in either of the other two job levels. He or she can decide to use or refer to the other curriculum objectives in instructional planning or to combine them. If levels 1, 2 or 3 are combined in a given program, the table makes it easy to combine or sequence curriculum objectives by order of scale value.

Level 3 refers to the radiologic technologist in both Tables 4 and 5. Since the prior skill and knowledge content of patient care and quality assurance at levels 1 and 2 are different, the sequences in which the skill and knowledge objectives for level 3 appear are different in the two tables; they reflect the prior sequencing at levels 1 and 2 for each of the two factors respectively.

Table 6 in Chapter 8 presents the curriculum outline for administrative tasks at level 3. The information on the skills, knowledge categories, scale values, Task Codes, and Curriculum Objective Numbers are presented separately so that the program designer can incorporate them to suit the needs of the program, such as in a separate educational ladder, within core curricula, or combined with the material in Tables 4 and/or 5.

If the educational institution does not subscribe to the educational ladder approach, the appropriate table to use for program design is Table 3, which makes it possible to treat each of the skills and knowledges at each scale value as a unit by combining the objectives across occupational units; it is then possible to order the curriculum so that activities at lower scale values of the skills and knowledges are taught before higher ones are taught. It is also possible to examine all the skills and knowledges and decide on the best order of presentation from the point of view of logic or the nature of the disciplines.

Radiation Physicist Curriculum

Table 7 in Chapter 8 deals with the radiation physicist. It presents the skill and knowledge requirements for the job; at this time curriculum objectives have not been written for level 5. However, this can be done by the program designer without a great deal of effort. Each skill and knowledge category is presented, along with the scale value and the Task Code Numbers associated with each scale value. The program designer could work with these data and Volume 3 of Research Report No. 7, which contains the task descriptions for the physicist. Following the description of the HSMS curriculum design method in Chapter 6 of this report, the user could annotate the task descriptions using the skill scales of Appendix C and the knowledge category names of Appendix B of Volume 1 of this report. The curriculum objectives could then be written, using those of Chapter 9 as models.

Sequencing Curriculum Objectives Within Programs

The curriculum outlines of Chapter 8 offer suggestions on overall sequences that are related to job content. The order in which the objectives are presented within each educational unit is skills first, followed by knowledge categories in the code number order of the Knowledge Classification System. Within each category the objectives start with the lowest scale value and proceed upwards. For any given program, sequencing by scale value is the most logical way to present any given skill or knowledge category. It is also appropriate to present a broad subject category before its component subdivisions. Tables 3 through 7 all take this into account.

However, it is certainly not appropriate to teach skills first and knowledge categories second. (See the section on skills under Instructional Planning, below.) In fact, it is best to teach skills with the knowledge content to which they are applied. In addition, the order in which knowledge categories appear within the HSMS Knowledge Classification

System may not be the most appropriate order for a given occupational program. The sub-categories within broad disciplines have a clear interrelationship reflecting the structure of the disciplines; however, it is an arbitrary function of the coding system that the biological sciences come before physics or mathematics, that "normal structure and function" and "pathology" come before "pharmacology," or that these precede "diagnotic radiology" or "interaction with radiation." It was an arbitrary decision that placed the "musculoskeletal system" after several other systems of the body under "normal structure and function."

Part of the responsibility of the program designer and/or instructional planner is to decide on the best ordering of the curriculum objectives. One insight that we offer is that the skills and knowledges that "determine" a given factor are interrelated, and generally rise and fall together. Thus, Table D.1 in Appendix D of Volume 1 of this report offers some useful information. The table presents the skills and knowledge categories that "determine" the various factors. Those determining Factors III, IV, and VI (in the six factor solution) should be considered for joint presentation. There is a possibility that, since they are interrelated, presenting the material together may enhance the effectiveness of instruction. This is obvious for subjects such as "radiobiology" and "interaction with radiation."

It is apparent to us, for example, that it is a waste to teach "topographic anatomy," "regional anatomy," or the anatomy and physiology of various systems of the body separately from "positioning" in the program for the radiologic technologist. This wasteful separation in some program outlines cannot be undone at the level of instructional planning. The decision must be made at the level of program design.

We suggest that, as a general rule, the skill and knowledge objectives that relate to the same task activities be grouped together and taught as a unit. The introduction to the disciplines and skills would come first, followed by the specific content of the disciplines as required in the task situations for the group of curriculum objectives. Laboratory simulation would follow, and then, eventually, clinical practice. Sets of HSMS curriculum objectives could be organized into a sequence of three or four modules which would cover, in sequential fashion, the general academic, laboratory, and clinical content needed to master a particular group of task activities. This approach is valuable for program designers who are preparing modular program structures.[2]

The benefit of this type of task-centered program design is that it is possible to provide the student with an early awareness of how the various disicplines are combined in the clinical situation.

A module for a related set of tasks may be difficult to translate into academic credits comparable to those assigned to traditionally designed courses listed by discipline. However, we suggest that the educational benefits to be derived from such a modular approach may be well worth the effort needed to add up the fragmented areas of a discipline divided among task-oriented modules in order to grant those coveted credits for course work in the disciplines.

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[2] Modular course structure is often linked with what has come to be known as "competency-based" education. The basic premise is that students should be allowed to learn at their own pace, should be required to study only the content they have not already mastered in previous educational or work experiences, and should be granted a degree or certificate on the basis of demonstrated mastery of the subject matter covered by the program, rather than on the basis of a prescribed minimum number of credits acquired during a prescribed period of time.

Other Educational Sequences

The HSMS method produces designs for the structuring of tasks into logical job ladders and into educational ladders to parallel them; the method produces data that can be arranged to design educational ladders for any desired structuring of tasks into job sequences.

The HSMS curriculum objectives can be arranged into educational ladders by virtue of the additive nature of the skill and knowledge scales and the factor analysis with which we group the tasks into interrelated factors. Because of the additive nature of the scaled skill and knowledge categories, one need only investigate the difference between the highest scale values required for any two occupational units to discern the educational gap between them. This means that one can determine the extent to which additional preparation is needed to move laterally and/or vertically across job structures. Table 2 provides an example of this type of information.

Table 2, presented at the end of this chapter, shows the highest scale values required in the 15 skills and 88 knowledge categories required for the ten occupational units presented in Figure 16. Inspection of the table demonstrates the rational basis of our factor solutions. There are distinctions among the factors for patient care and quality assurance, for example, with respect to the knowledge categories required, the extent to which they rise by job level, and the actual levels required. The gaps between levels within and across factors can be ascertained, compared, and used in program design.

INSTRUCTIONAL PLANNING

Instructional planning takes place within the framework of program design. Instruction is organized on the basis of the needs and interests of students and teacher in the context of the classroom and within the constraints imposed by the curriculum and program. According to Johnson, curriculum objectives alone do not fully define instructional content, because:

> Instructional content includes not only that which is implied or specified in the curriculum, but also a large body of instrumental content selected by the teacher, not to be learned, but to facilitate the desired learning. Concepts and generalizations are not learned directly but rather through numerous encounters with specific manifestations, the selection of which is an instructional, rather than curricular, function.[3]

HSMS can offer suggestions for instructional planning because the skill scales, the Knowledge Classification System, and the task descriptions have instructional implications. We offer suggestions in three areas: first, in the use of task descriptions; second, a somewhat new approach to the teaching of skills; and third, some specific suggestions for the classroom presentation of certain of the skills.

Task Descriptions as Instructional Materials

The HSMS task descriptions function as a source of procedural knowledge: the procedures and sequences for the individual tasks. As instructional materials for the classroom and for clinical training, they provide ordered, logical sequences of steps. They suggest what contingencies, options, and emergencies are associated with the tasks, and, for the less familiar specialties, an indication of what is done in a given procedure.

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[3] Johnson, *op. cit.*, p. 131.

The existence of the task descriptions themselves provides textual materials that are lacking in certain areas. For example, we have found no existing textbooks which describe clinical procedures in a consistent format, in appropriate sequences, and with reference to contingencies. Little sequential or detailed information exists for many contrast studies in which radiologic technologists carry out radiographic functions, particularly angiography.

The task descriptions are portrayals of what the clinical experience will be, including what is used and the interactions that occur. As a result, the task descriptions can be used in the development of team training. For any given occupational level,such as radiologic technology, the task descriptions for higher-level jobs such as physicist and radiologist can be used to provide students with an understanding of the work behavior to be expected of these members of the team. Volume 1 of Research Report No. 7, which contains the radiologist tasks, may be an aid in the instruction of technologists.

Teaching the Skills

The HSMS curriculum objectives are primarily of two types, skill objectives and knowledge objectives. A skill, as defined in the HSMS method, is displayed when an individual carries out a mental or physical activity. Detailed information and comprehension of the theory of specific disciplines or subject areas, and information on how things function, how to use them, or what to do, is knowledge. Applying or using the knowledge in a job task requires skills.

The critical distinction between skill and knowledge, given that they are both treated as teachable, is that skills require practice if they are to be learned. Knowledge is learned primarily through didactic means. Skills may sometimes be introduced in an instructional setting, such as in a classroom or lecture room, but actual learning does not take place until there is practice. The basic component in what one learns through "experience" is skill.

We suggest that skills be taught directly and consciously, and that their salient characteristics should be explicitly presented. Skills dealing with personal interaction, decision making, and cognitive processes are exercised in the application of knowledge. They are the basis of judgment, problem solving, and evaluation. While entire courses of study could be required in the hope that the skills are somehow acquired by students, much could be done to ensure their rapid acquisition within the instructional setting if they were taught purposefully.

J. P. Guilford advocates the conscious development of the intellectual skills on the part of the educator, and suggests that, "The choice of curriculum should give attention to opportunities that different courses and subject matters have for development of the general skills as well as for their more immediate and special utilities."[4] He indicates the value of teaching skills directly through practice and in connection with the knowledges to be applied.[5]

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[4] Guilford, J. P., The Nature of Human Intelligence, New York: McGraw-Hill Book Co., 1967, p. 475.

We assume that when skills are taught and learned what is transferable are the attributes of the skills (as described in the HSMS scales). This is independent of substantive content. However, while skills can be taught and learned regardless of which specific procedures or knowledges are used to constitute the substantive content when the skill is applied, no skill can be learned without some substantive content. The implication is that what must be taught in each new situation are the knowledges and procedures of the situation. The skill, once learned at a given scale value, is available to the learner for use at that level in another context. We assume that, all other things being equal, a student who has been able to master a task using scale value 3.5 for a given skill, has less to learn for a second task which also requires scale value 3.5 for the skill than does someone who has never learned to perform at level 3.5 for the skill in any context. These different contexts are the obvious substantive contents which should be used to teach the skills.

Instruction can be specifically geared to draw on the interrelationships of skills and knowledge, and can utilize the different knowledge areas to specifically develop the skills. The skills can be used to develop the understanding of the knowledge. If instructional planning emphasizes the direct teaching of skills as well as knowledge, needlessly long and unduly inadequate training might be eliminated to an extent not yet imagined.

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[5] Op. cit., p. 476.

The direct teaching of skills and the link in curriculum objectives between skills and task activities may make it possible to provide students with the quality training needed to improve the health care delivered to the patients served by the occupations being studied.

Notes on Teaching Specific Skills

The HSMS method includes two interpersonal skills. One is "Human Interaction." It is exercised whenever a task requires the performer to come into contact or interact with other persons. The second is "Leadership." It is exercised whenever a task requires the performer to relate to subordinates so as to influence their work behavior. Both of these scales have scaling principles which describe the circumstances under which the skills must be exercised, rather than the nature of the skills. This is because interpersonal skills may be exercised in ways which are unique to the performer and reflect his or her individual personality. These skills can be taught independently of individual personality differences by teaching the circumstances that require them and the outcomes required.

The interpersonal skills may be taught best by combining direct experiential techniques, such as role playing and sensitivity training, with didactic emphasis on the task circumstances that call for the skills. For example, human interaction involves awareness of the "relevant characteristics" of the "other" in the task. What these characteristics are varies with the task and must be consciously taught. On the other hand, the conditions which require various degrees of leadership may vary from institution to institution. Instruction must cover how to assess the conditions that require different levels of leadership.

The skills dealing with financial consequences of error and consequences of error to humans are used to scale tasks for the most serious likely error to be expected after adequate training has taken place. In teaching these "responsibility" skills, however, pre-training, in-training, and post-training errors should be taught, and emphasis should be placed on the avoidance of all error as well as on the consequences of error.

USE OF CURRICULUM OBJECTIVES FOR EVALUATION

Evaluation turns the various stages of the educational process into a system; evaluation is the link between occupational preparation and employment; and evaluation can be used to provide credit for occupational preparation that has been obtained in nonconventional ways.

After instruction has taken place, actual learning outcomes may or may not correspond to instructional objectives; even if the instructional objectives have been met, these may not correspond to the intended learning outcomes of the curriculum objectives; there is always the possibility that mastery of the curriculum objectives does not produce the hoped-for performance on the job that is expressed in educational objectives. Evaluation at each stage in the process makes it possible to revise the work at that stage to achieve the objectives of the prior stage.

In many health services occupations, passing licensure and/or registration examinations, and/or successful completion of occupational programs are requirements for employment. Examinations are therefore a form of evaluation, telling the graduate whether or not he or she has mastered the credential requirements for an occupation (whether or not these correspond to the needs of the job).

For the individual student or employee, access to upward mobility or mobility across occupations can be promoted if there is a way to credit the individual for competent work performance and/or occupational preparation. Appropriate evaluation can make it possible to grant credits or advanced standing to individuals to enable them to enter or reenter an occupational program without redoing work already mastered. It can permit persons who have achieved mastery through self-study or experience to enter credentialed occupations; and it can facilitate movement across occupations by eliminating redundant educational requirements.

Evaluation is also a cornerstone of individualized instruction. It can permit students to move from one curriculum "module" to the next when appropriate mastery is displayed, or it can permit students to be exempted from course work on the evidence of mastery. Job relevant, performance-based evaluation is the key to equal employment opportunity. The fact that a test measures work performance rather than classroom performance is a _prima facie_ argument for the content validity of that test as a means to determine entry to an occupation or employment in a job.

Direct evaluation of work performance can only be done within the employer's institution. _Job evaluation_ is the assessment of the performance of employed individuals or the clinical practice of students within the work setting. In order to evaluate the competence of individuals _before_ employment but after preparation, _testing_ must be done. Tests eliminate the need to be in the actual work setting; but such testing must be standardized and must have content validity, i.e., must be shown to be actually measuring work competence. _Proficiency tests_ are designed for such purposes. They are expected to measure the extent to which individuals are able to carry out specific work activities. Such tests are valid if the items truly measure preparation for work.

We deal below with the direct use of HSMS curriculum objectives to evaluate students and with the use of the HSMS curriculum objectives as inputs to the development of valid proficiency tests.

The HSMS curriculum objectives are behavioral statments that describe work activities, describe the conditions under which the activities are to be demonstrated, and include reference to the skills or knowledges to be utilized in the activities. If one further step is taken, the curriculum objectives can be transformed into evaluation instruments. That step is the provision of competency standards for each curriculum objective. Once the competency standards are known, students can be rated; the result would be criterion-referenced evaluation instruments.

The standards for the curriculum objectives could be determined by the instructor, program designer, or a team of experts. The result could be provision of competency-based education, wherein the competency is referenced to the ultimate job application rather than to the classroom. The modules for such a program would be curriculum modules.[6]

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[6] "Competency-based" education utilizes a series of pre- and post-tests for each module in a program. The tests are directly related to what is covered in the module and are equivalent in difficulty and range. Before beginning a module, each student takes a pre-test. If he or she meets the criterion for success, the student is given credit for the module and goes on to the next unit. If not, the student takes the module and, after completing the work, is allowed to take the post-test. Not until a student has met the criterion for success is credit given for the module and the student allowed to move on.

Competency-based education, which usually means individualized instruction, makes it possible to eliminate formal time requirements. The conventional use of a fixed amount of time which must be spent in approved or accredited programs before the individual may enter into an occupation (or sit for a licensure or certification examination) makes the implicit assumption that time equals adequacy of preparation. But the arbitrary assignment of time requirements is no guarantee that students will be adequately trained; the increase of time requirements sometimes suggested for programs is no guarantee that student performance will be improved. It is more important to make sure that curriculum requirements reflect task requirements and educational objectives.

A standard time requirement is a penalty against talented students. Particularly when clinical training is an important proportion of the curriculum, demonstration of successful mastery of intended learning outcomes, competency-based education, and criterion-referenced evaluation seem more appropriate mechanisms. Talented students who can master the classroom preparation and clinical practice quickly would be able to enter the shortage labor markets more rapidly and would be earning income more quickly. Students with learning difficulties would be less likely to be in practice and would be more identifiable for diagnosis and remedial educational services.

This approach to evaluation could also be used to determine student readiness to pass from laboratory to clinical work, or to ascertain when clinical work was successfully completed. The result of such evaluation might be greater safety for the patients who are involved in clinical practice.

PROFICIENCY TESTING

Proficiency tests in the area of occupational licensure or certification purport to measure those competencies that define the requirements for entry into given occupations. The tests are often designed to be administered as paper and pencil tests, sometimes on a nationwide basis. The proficiency test is generally used by licensure and registration agencies as a prerequisite to practice in an occupation. The tests could be used to permit individuals who do not have the formal education required to demonstrate that they are qualified to enter an occupation and are able to function at quality levels set by the profession or by a government agency.

Increasingly, the developers of proficiency tests for health services occupations are being asked to provide tests that are work related. They are also being required to develop criterion-referenced rather than norm-referenced tests. The issue of job relevant content validity has constitutional implications. However, there is still much confusion about what forms of reliability and validity are appropriate. There is also confusion about the difference between construction of norm-referenced tests and construction of criterion-referenced tests.[7] Other issues relate to appropriate test construction and content selection if the tests are to be acceptable to the organizations involved in registration or licensure of individuals and to educational institutions who might use the tests to grant advanced standing in instructional programs.

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[7] Working Paper No. 12 will appear in the fall of 1977, and will deal with these issues.

When a test measures anything other than job-related competence, its validity is attenuated. Thus, if a test measures classroom behavior required in accredited programs, and any of the classroom behavior is not job relevant, the test's relevance is decreased and its validity for evaluating job-related competencies is also decreased.

When proficiency test content is selected by "experts" who are academically oriented, the tests can be more related to academic instructional objectives than to work requirements. If a portion of the test takers are graduated from hospital-based occupational programs or are the products of informal means of preparation, such academically oriented tests can penalize them while favoring graduates of academic programs.

In an attempt to make proficiency tests job relevant, test constructors are being encouraged to refer to task data. However, task data are usually task inventories and not task descriptions; traditionally, the professionals in an occupation are enlisted to develop the task data.

Another problem in testing is that of sampling. Any proficiency test for an occupation can only sample from the universe of work behaviors associated with the occupation. Therefore, the appropriateness of sampling becomes a crucial problem. Traditional test design methods that use task data provide no clear-cut guidelines for content selection; they rely on experts in the occupation who are trained neither in job analysis nor in test construction.

The experts also decide on the level of difficulty of tasks. This usually refers to abstract qualities of "difficulty" or "responsibility" and not to a taxonomy of skills and knowledges which are scalable.

The frequency or centrality of tasks is determined by a sample survey of institutions or by consulting experts.

We believe that it is feasible to remove content selection for proficiency tests from subjective or unfocused processes which usually result when an objective method and a common frame of reference do not exist. Test construction decisions can be objective, explicit, and defensible. In our opinion, the HSMS methods of task analysis and curriculum design and the HSMS curriculum objectives provide the objectivity, logic, and focus needed for the selection of test content. The use of curriculum objectives such as those in Chapter 9 as the source of test items provides built-in content validity because these objectives are taken directly from task language and completely bypass classroom behaviors. They provide professional standards because they are based on normative task descriptions which have been reviewed by leaders in the occupation. The experts thus provide inputs to the area where they have expertise.

An HSMS behavioral curriculum objective defines the universe of content from which one can generate test items that measure competence in a particular work-related skill or knowledge, at a level of difficulty determined by the nature of the task activity. The information at the top of the curriculum objective indicates the number of tasks for which the skill or knowledge at a given scale value is relevant. Thus, frequency across all the tasks of the occupation is known and can be used as a reference for weighting or to determine centrality.

The various task behaviors listed on a given curriculum objective provide alternative content areas for alternate test items, since each refers to the same scale value. The work content of the curriculum objectives is so apparent that the test items readily suggest themselves.

It is possible to develop test items that are in a scale relationship to one another for a given content area to differentiate levels of proficiency. This is possible because some skill and knowledge categories are required at varying scale values, and there are separate curriculum objectives for each. To summarize:

1. HSMS curriculum objectives offer a way to build content validity into proficiency examinations because there is nothing one can choose for test items that is not relevant to the work.
2. The HSMS curriculum objectives identify work content that can be used for the development of alternate test items. That is, if several activities in different tasks scale at the same level for a given skill or knowledge, they provide alternative contents for test items.
3. HSMS curriculum objectives make it possible to objectively determine the centrality and frequency of specific task (work) behaviors that require skills and knowledges at given scale values.
4. HSMS curriculum objectives make it possible to arrange test items in order of difficulty of task activities by virtue of the HSMS scale values assigned to each curriculum objective.

In Chapter 3 of this report we discussed the development of performance evaluation instruments. These can be used for a further test of the content validity of test items. Since the same task data can be used for performance evaluation instruments and for the development of curriculum objectives, the test can be formally validated by applying both the performance evaluation instruments and the test to a known population of incumbents in an occupation. On the basis of this type of information, the test can be constructed to evaluate mastery and also to discriminate among test takers.

USE OF CURRICULUM OBJECTIVES FOR CURRICULUM ANALYSIS

The HSMS curriculum objectives are behavioral statements about learning outcomes. They therefore can supply a common frame of reference for discussions about new curricula, curriculum overlap, credit for advanced standing, articulation of programs, justification or elimination of course work, comparison of curriculum requirements, or diagnosis of inadequate curriculum content.

Curriculum Change

Educational programs are under pressure to change in order to accommodate socially engendered requirements such as treating the patient with dignity, arranging for informed consent, and providing maximum safety; they are under pressure to change in order to accommodate new technologies such as computerized transverse axial tomography and ultrasonic scanning. Change is necessary if the graduates of occupational programs are to perform appropriately in the institutions which hire them.

The HSMS method of job analysis, job ladder design, and curriculum design make possible an ongoing accommodation to changes in program curricula. Regardless of the source of change, the results can be translated as follows:

1. Changes in task descriptions.
2. Elimination of obsolete tasks.
3. Creation of new tasks; skill and knowledge scaling of new tasks.
4. Changes in the skills and/or knowledges required for task performance.

The HSMS methods make is possible to incorporate any such changes into the task data base. This means that the new or changed tasks can immediately be located in their positions on factors and in task hierarchies through inspection or statistical analysis. This, in turn, means that new or changed tasks can be assigned to the jobs or occupations where the additional preparation required to teach their performance would be at a minimum.

The new tasks can be readily incorporated into the curriculum guidelines and curriculum objectives, including, if appropriate, the specification of new educational objectives and creation of new curriculum objectives. All that is needed by the institution is access to the methods. Short of following all the technical procedures, the structure of HSMS task and curriculum objective data is so apparent that a common-sense simulation of the methods would be adequate to accommodate the needed changes in curricula. A similar approach can be taken to remove from curricula the objectives associated with obsolete tasks.

Revision of Curricula

Chapter 4 of Working Paper No. 11 describes ways in which HSMS curriculum objectives can be used to compare existing curricula to identify overlap of content across programs, to find unnecessary requirements, and to pinpoint areas not adequately covered.[8] It describes how to use the HSMS curriculum objectives to provide for articulation of programs through granting credits, advanced standing and/or exemptions for students who move from one program to another. The curriculum objectives provide concrete references about what the given curricula do or do not teach the student to do. The HSMS curriculum objectives can be used similarly for critical evaluation of current curriculum offerings and can be used, as well, in the development of core curricula. The curriculum objectives can be used as a common frame of reference to compare one set of curriculum requirements with another. In all of these undertakings, the curriculum objectives help the educator to pinpoint the content and outcomes of course material.

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[8] *Op. cit.*, Chapter 4.

Curriculum Review

Elimination of irrelevant or redundant curriculum content can, by shortening the preparation time required, enhance upward mobility. Table 2, below, is a framework within which program requirements can be evaluated. It indicates the highest scale values of the various skills and knowledges required for the ten occupational-educational units presented in Figure 16. This table indicates that physics categories such as "atomic structure" and "atomic radiation processes" are not required for the technician and technologist tasks, but "interaction with radiation" and "radiobiology" are needed. In addition, the table provides an indication of how subject area content can be sequenced to provide articulation of programs. For example, "radiobiology" can be introduced at the patient care aide level at the instructional equivalent to a scale value of 1.5 or the patient care technician level at 2.5; this can be added to at the technologist level at 3.5, with credit for the 1.5 or 2.5 content and no redundancy in instruction. The educational step to the program for radiation physicist need only offer the work required to bring the mastery of the subject to the performance level indicated by a scale value of 5.5.

Table 2. SKILLS AND KNOWLEDGES BY TASK FACTOR AND LEVEL IN PATIENT CARE, QUALITY ASSURANCE, RADIOLOGIC TECHNOLOGY, AND ADMINISTRATION IN DIAGNOSTIC RADIOLOGY[a]

Page 1 of 8

Skill or Knowledge Category Number and Name	Level 1		Level 2		Level 3		Level 4			Level 5
	Pt. Care	Qual. Ass.	Pt. Care	Qual. Ass.	Rad. Tech.	Ad-min.	Rad. Tech.	Ad-min.	Pt. Care	Qual. Ass.
Object Manipulation Skills	3.5	5.0	7.5	3.5	3.5		3.5		5.0	3.5
Guiding or Steering Skills	3.0	1.5	3.0	1.5	1.5		1.5		3.0	-
Human Interaction Skills	5.0	3.0	7.0	3.0	5.0	5.0	5.0	5.0	7.0	5.0
Leadership Skills		1.0	4.5	-		4.5	4.5	4.5	4.5	-
Oral Use of a Relevant Language	4.0	4.0	4.0	4.0	7.5	4.0	7.5	4.0	4.0	7.5
Reading Use of a Relevant Language	2.0	5.0	5.0	5.0	5.0	2.0	5.0	2.0	5.0	7.0
Written Use of a Relevant Language	2.0	2.0	2.0	5.0	2.0	2.0	5.0	5.0	2.0	5.0
Decision Making on Methods	4.5	3.0	7.0	4.5	4.5	3.0	4.5	4.5	7.0	7.0
Decision Making on Quality	7.0	3.5	3.5	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Figural Skills	1.0		1.0	3.5	5.0		5.0		-	5.0
Symbolic Skills		1.5		1.5	1.5		1.5		1.5	3.5
Taxonomic Skills			2.0	2.0	2.0		2.0		2.0	5.5
Implicative Skills	2.0	1.0	5.0	2.0	2.0	1.0	2.0	1.0	5.0	4.0
Financial Consequences of Error	1.0	4.0	1.0	4.0	4.0	1.0	1.0	1.0	1.0	4.0
Consequences of Error To Humans	7.0	5.5	7.0	7.0	7.0	3.0	7.0	3.0	5.5	7.0
11731000 Normal structure and function (human anatomy and physiology)					2.5		3.5			
11731100 Regional anatomy (includes head and neck, thorax and abdomen, pelvis and perineum, lower and upper limbs, and skeleton)				5.5	7.0		7.0		3.5	5.5
11731200 Topographic anatomy (relation of external manifestations to internal structure and function)	2.5		3.5		7.0		7.0		3.5	
11731300 Hematopoietic system (includes blood, red and white blood cells, platelets, and bone marrow, liver and spleen in their blood forming function)					1.5		1.5			

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[a] Reflects factor structure of 6-factor solution for the Run 3 and Run 4 tasks listed in Appendix A. Patient Care (Pt. Care) corresponds to Factor IV; Quality Assurance (Qual. Ass.) corresponds to Factor VI; Radiologic Technology (Rad. Tech.) corresponds to Factor III; Administration (Admin.) corresponds to Non-factor A. Numbers in columns refer to the highest scale values required in a given skill or knowledge category in a given factor, at a given level. Level 1 refers to aide; level 2 is technician; level 3 is technologist; level 4 is supervisor and junior professional; level 5 is professional.

Table 2 (continued)

	Level 1		Level 2		Level 3		Level 4			Level 5
Knowledge Category Number and Name	Pt. Care	Qual. Ass.	Pt. Care	Qual. Ass.	Rad. Tech.	Ad-min.	Rad. Tech.	Ad-min.	Pt. Care	Qual. Ass.
11731400 Circulatory system (cardiovascular system; includes heart, veins, arteries, lymphatics)	1.5		2.5		1.5		3.5		2.5	
11731500 Respiratory system			2.5		1.5		2.5		2.5	
11731600 Digestive system					1.5		2.5			
11731610 Mouth, pharynx (digestive function), esophagus (includes tongue, teeth, and salivary glands)					1.5		2.5			
11731620 Stomach and small intestine (includes duodenum, jejunum, ileum)					1.5		2.5			
11731630 Large intestine (colon) and rectum (includes appendix, anus, and mesentery)					1.5		2.5			
11731640 Liver, biliary system, and pancreas (includes gallbladder, cystic duct, bile duct, pancreatic duct, ampulla of Vater)					1.5		2.5			
11731700 Urinary system (includes kidney, ureter, bladder, urethra, external genitalia)			3.5		1.5		2.5		2.5	
11731800 Musculo-skeletal system					5.5		5.5			
11731820 Bones and joints (includes ligaments and tendons)					7.0		7.0			
11731910 Central nervous system (brain and spinal cord)					1.5		2.5			
11731943 Eye and optic nerve					1.5		1.5			
11732100 Immunologic system (includes immunological mechanisms, humoral and cellular factors)									3.5	
11732222 Male reproductive system					1.5		1.5			
11732223 Female reproductive system (includes ovulation, conception, pregnancy changes)					1.5		2.5			
11732300 Homeostasis of fluids (includes fluid and electrolyte balance)									2.5	
11733200 Neoplasms (cancerous growths)					1.5		2.5			
11733400 Disorders of blood and blood-forming organs					1.5		1.5			
11733510 Disorders of the central nervous system					1.5		2.5			
11733600 Disorders of the circulatory system	1.5		1.5		2.5		3.5		3.5	
11733700 Disorders of the digestive system					1.5		2.5		3.5	
11733800 Disorders of the respiratory system					2.5		3.5		3.5	
11733900 Disorders of the uro-genital system					1.5		2.5		3.5	

Table 2 (continued)

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Knowledge Category Number and Name		Level 1 Pt. Care	Level 1 Qual. Ass.	Level 2 Pt. Care	Level 2 Qual. Ass.	Level 3 Rad. Tech.	Level 3 Ad-min.	Level 4 Rad. Tech.	Level 4 Ad-min.	Level 4 Pt. Care	Level 5 Qual. Ass.
11734200	Disorders of the musculoskeletal system and connective tissues					2.5		3.5		3.5	
11734300	Congenital abnormalities					1.5		2.5			
11734400	Disorders and complications of pregnancy, childbirth and the puerperium					1.5		2.5			
11734600	Burns			3.5						3.5	
11734800	Shock and trauma			3.5		2.5		2.5		5.5	
11735000	Surgery					1.5		1.5			
11735100	Operative procedures (also includes biopsy, removal of tumors, removal of organs, Caesarian section, removal of drains)			1.5		1.5		1.5		2.5	
11735300	Repair surgery					1.5		1.5			
11735400	Introductory procedures (includes injections, transfusion, irrigation, catheterization, intubation, tracheotomy)		1.5	3.5	-	1.5		3.5		5.5	-
11735500	Endoscopy (direct visual observation of bronchi, esophagus, duodenum, colon, etc. with an endoscope)					1.5		1.5		2.5	
11735600	Suture (also includes ligature, suture materials)			1.5						-	
11735800	Delivery methods for childbirth					1.5		1.5			
11736000	Anesthesiology					1.5		1.5			
11737000	First aid and care			7.0		3.5		3.5		7.0	
11737100	Bandages, dressings, tourniquets and splints	1.5		3.5		1.5		2.5		3.5	
11737200	Hemorrhage and bleeding and their arrest	1.5		3.5						3.5	
11737300	Handling and transportation of the sick or wounded	3.5		5.5		5.5		5.5		3.5	
11737400	Sprains, strains, fractures and their healing			3.5		2.5		3.5		3.5	
11737600	Resuscitation			7.0						7.0	
11737700	Wounds and their healing (also includes operative incisions)			5.5		2.5		2.5		3.5	

Table 2 (continued)

Page 4 of 8

Knowledge Category Number and Name		Level 1		Level 2		Level 3		Level 4			Level 5
		Pt. Care	Qual. Ass.	Pt. Care	Qual. Ass.	Rad. Tech.	Ad- min.	Rad. Tech.	Ad- min.	Pt. Care	Qual. Ass.
11738000	Asepsis (concepts and techniques involved in achievement of sterile condition; includes concurrent and terminal disinfection during surgery, aspects of sterilization of implements and equipment)	3.5	2.5	3.5	-	3.5		3.5		3.5	-
12210000	Radiobiology (effects of high energy radiation on living organisms; includes effects of ionizing electromagnetic, ultraviolet, sonic and particulate radiation, biological safety requirements and protection)	1.5		2.5	3.5	3.5		3.5		2.5	5.5
12220000	Radiology (diagnostic and therapeutic application of radiant energy including electromagnetic and particulate radiation)										2.5
12221000	Radiotherapy (application of electromagnetic and particulate ionizing radiation to living organisms for therapeutic purposes; includes determination of course of treatment and administration of treatment)										2.5
12222000	Radionuclide therapy (part of nuclear medicine; internal application of unsealed sources of particulate radiation (radioactive materials) to living organisms for therapeutic purposes; includes determination of course of treatment and use of radionuclides)										2.5
12223000	Diagnostic radiography (application of electromagnetic ionizing radiation such as x-rays to achieve interpretable images for diagnostic purposes; also includes fluoroscopy, use of related techniques, contrast media, procedures, positioning, interpretation of images)	2.5	2.5	2.5	5.5	7.0		7.0		3.5	7.0

Table 2 (continued)

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Knowledge Category Number and Name		Level 1		Level 2		Level 3		Level 4			Level 5
		Pt. Care	Qual. Ass.	Pt. Care	Qual. Ass.	Rad. Tech.	Admin.	Rad. Tech.	Admin.	Pt. Care	Qual. Ass.
12224000	Radionuclide analysis (part of nuclear medicine; internal application of unsealed radioactive nuclides to living organisms for the purpose of diagnosis or investigation; includes use of radioisotope scanning (tracer techniques), related procedures, positioning)										2.5
12300000	Pharmacology (the study of drugs, i.e., chemical compounds or noninfectious biological substances which may be administered as an aid in the diagnosis, treatment or prevention of disease, for the relief of pain or suffering, or to control or improve any physiological or pathological condition)		1.5	1.5	-					-	-
12331000	Drug toxicity (includes antidotal therapy)			2.5		1.5		1.5		2.5	
12332000	Drug idiosyncrasy and allergy pharmocogenetics (includes increased sensitivity to drugs, decreased responsiveness to drugs, novel drug effects, etc., which are due to inherited physical characteristics)			2.5		1.5		1.5		2.5	
12334000	Drug tolerance and physical dependence (includes homeostatic adjustment, cumulative effects, tolerance at the site of drug action)			2.5						2.5	
12335000	Drug synergism (presence of two or more drugs in the body having interaction effects and the change in drug action this causes)			2.5						2.5	
12336000	Chemical teratogenesis (special effects of drugs on the fetus during pregnancy)			2.5						2.5	

Table 2 (continued)

Knowledge Category Number and Name		Level 1		Level 2		Level 3		Level 4			Level 5
		Pt. Care	Qual. Ass.	Pt. Care	Qual. Ass.	Rad. Tech.	Ad-min.	Rad. Tech.	Ad-min.	Pt. Care	Qual. Ass.
12341100	Antibacterial and antifungal chemotherapy (includes antiseptics and germicides, sulfonamides, penicillins, erythromycin, tetracyclines, and broad spectrum antibiotics, streptomycin, sulfones, antifungal agents)			3.5						3.5	
12341300	Cancer and virus chemotherapy			3.5						3.5	
12342100	Drugs acting on the cardiovascular system and smooth muscle			3.5						3.5	
12342200	Drugs acting on the blood			3.5						3.5	
12342300	Hormones and drugs acting on endocrine glands and accessory reproductive organs			3.5						3.5	
12342600	Drugs for allergy, cough, vomiting and the dermatomucosal surfaces			3.5						3.5	
12342700	Drugs acting on the gastrointestinal tract (includes drugs effective in ulcer therapy, cathartics and laxatives, digestants and drugs useful in gallbladder disease)			3.5						3.5	
12342800	Drugs acting on the nervous system									2.5	
12342810	Drugs acting on the autonomic nervous system			3.5						3.5	
12342820	Drugs acting on the neuromuscular system			3.5						3.5	
12342830	Drugs acting on the central nervous system			3.5		1.5		1.5		3.5	
12342900	Drugs acting on the immunologic system			3.5						3.5	
14111000	Solutions (mechanical, optical, colligative properties)										2.5
15212100	Electric circuit theory (includes Ohm's law, Kirchhoff's laws, impedance, inductance, resistance, amperage, voltage, potentiometry, bridges, alternating and direct current, wave-guides, transmission)				1.5						2.5

Table 2 (continued) Page 7 of 8

Knowledge Category Number and Name		Level 1		Level 2		Level 3		Level 4			Level 5
		Pt. Care	Qual. Ass.	Pt. Care	Qual. Ass.	Rad. Tech.	Ad-min.	Rad. Tech.	Ad-min.	Pt. Care	Qual. Ass.
15222100	Atomic structure (includes nuclear atom model, electronic energy levels, magnetic spin-orbit interaction)										2.5
15222200	Atomic radiation processes (includes ionization potentials, line spectra-transitions between electronic energy levels, forbidden lines, Zeeman effect, Stark effect, band structure-rotational spectra)										2.5
15222500	Interaction with radiation (includes inversion spectra-absorption of microwave radiation)			1.5	1.5	1.5		1.5		-	2.5
24110000	Electromagnetic field theory applications (includes electromagnetic devices and energy conversion)				1.5						1.5
24112000	Transducers and rotating machines (includes electric motors, electric generators, relays, solenoids)										2.5
24132100	Electronic devices				1.5						2.5
33000000	Computer technology		1.5		1.5	1.5		1.5			2.5
41666700	Death and dying behavioral development					1.5		1.5			
42300000	Systems of content presentation (includes procedures such as lecture, symposium, panel, forum, role-playing, case study, demonstration, colloquium, audio-visual techniques, programmed instruction, microlabs and laboratory methods)							1.5			2.5
42630000	Professional and graduate education										2.5
51200000	Algebra				1.5	1.5		1.5			1.5
52220000	Descriptive statistics (includes standard frequency and distribution functions, mean, median, and mode, measures of dispersion, graphic and tabular representation of data)				1.5						1.5

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Table 2 (continued) Page 8 of 8

Knowledge Category Number and Name	Level 1 Pt. Care	Level 1 Qual. Ass.	Level 2 Pt. Care	Level 2 Qual. Ass.	Level 3 Rad. Tech.	Level 3 Ad-min.	Level 4 Rad. Tech.	Level 4 Ad-min.	Level 4 Pt. Care	Level 5 Qual. Ass.
65260000 Photography and cinematography				1.5						2.5
65620000 Mechanics of writing English (includes traditional (prescriptive) grammar, punctuation, spelling, bibliographic and footnote form)			1.5	3.5	2.5		2.5	2.5	2.5	5.5
Total Skill and Knowledge Categories (103)	20	18	53	26	66	9	68	9	59	35

Note: The scales used in the HSMS method are presented in Appendix C of Volume 1.
The tasks assigned to each factor and level are presented in Appendix E of Volume 1.

CHAPTER 8

CURRICULUM OUTLINES

This chapter is composed of a series of tables. Each table presents an ordering of the HSMS curriculum objectives which appear in Chapter 9.[1] The tables are discussed in Chapter 7.

Table 3 is an index of all the curriculum objectives. The objectives are arranged by skill or knowledge category, in rising order by scale value, and by job factor and job level. The table indicates the number of each curriculum objective and the skill, knowledge category, scale value, job factor, and job level which each curriculum objective covers.

Tables 4, 5, and 6 present the curriculum objectives for educational ladders. The Curriculum Objective Numbers for all skill and knowledge objectives are presented by scale value and job factor in job-level sequences. The tables also list the Task Code Numbers for the tasks on which each curriculum objective is based. Table 4 is the outline for the educational ladder that starts in quality assurance; Table 5 is the outline for the ladder that starts in patient care.

Table 6 lists the curriculum objectives for administrative tasks. These can be incorporated as desired in any program. Table 7 is similar to Tables 4 and 5, except that it deals only with the radiation physicist and does not refer to curriculum objectives. Curriculum objectives were not written above the technologist level. The table names and page numbers are as follows:

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[1] Chapter 9 is not paginated. Instead, each curriculum objective is paged separately, and objectives are presented in numerical order. The Curriculum Objective Numbers appear at the upper right, under the page number of the given objective.

Table	Title	Page
3.	Curriculum Outline Assuming that Radiologic Technologist Occupation Covers Four Factors and Three Levels.	8-3
4.	Curriculum Outline Assuming that Radiologic Technologist Occupation is Reached in Three Stages and Combines the Quality Assurance and Radiologic Technology Factors.	8-11
5.	Curriculum Outline Assuming that Radiologic Technologist Occupation Is Reached in Three Stages and Combines the Patient Care and Radiologic Technology Factors.	8-41
6.	Curriculum Outline for Administrative Tasks: To Be Incorporated in Curriculum for the Radiologic Technologist if Desired.	8-71
7.	Curriculum Requirements for Quality Assurance Professional (Radiation Physicist): Factor VI at Level 5.	8-73

Table 3. CURRICULUM OUTLINE ASSUMING THAT RADIOLOGIC TECHNOLOGIST OCCUPATION COVERS FOUR FACTORS[a] AND THREE LEVELS[b] (Index of Curriculum Objectives)

Page 1 of 8

Abbreviated Name of Skill or Knowledge Category	Scale Value	Job Levels by Factor				Curriculum Objective Nos.					
		Pt. Care	Qual. Assur.	Rad. Tech.	Admin. (A)	Pt. Care		Qual. Assur.		Rad. Tech.	Adm. (A)
Object Manipulation Skills	1.5	1, 2	1, 2	3		1	2	3	4	5	
	3.5	1, 2	1, 2	3		6	7	8	9	10	
	5.0	2	1			11		12			
	7.5	2				13					
Guiding or Steering Skills	1.5	1	1, 2	3		14		15	16	17	
	3.0	1, 2				18	19				
Human Interaction Skills	1.0	1, 2	1, 2	3	3	20	21	22	23	24	25
	3.0	1, 2	1, 2	3	3	26	27	28	29	30	31
	5.0	1, 2		3	3	32	33			34	35
	7.0	2				36					
Leadership Skills	1.0	2	1		3	37		38			39
	4.5	2			3	40					41
Oral Use of a Relevant Language	2.0	1, 2	1, 2		3	42	43	44	45		46
	4.0	1, 2	1, 2	3	3	47	48	49	50	51	52
	7.5			3						53	
Reading Use of a Relevant Language	2.0	1, 2	1, 2	3	3	54	55	56	57	58	59
	5.0	2	1, 2	3		60		61	62	63	
Written Use of a Relevant Language	2.0	1, 2	1, 2	3	3	64	65	66	67	68	69
	5.0		2						70		
Decision Making on Methods	1.5	1, 2	1, 2	3	3	71	72	73	74	75	76
	3.0	1, 2	1, 2	3	3	77	78	79	80	81	82
	4.5	1	2	3		83		84		85	
	7.0	2				86					

[a] The four factors are: Patient and Emergency Care (IV); Quality Assurance (VI); Radiologic Technology (III); and Administration (non-factor A).

[b] The three levels are: aide (1); technician (2); and technologist (3).

Table 3 (continued) Page 2 of 8

Abbreviated Name of Skill or Knowledge Category	Scale Value	Job Levels by Factor				Curriculum Objective Nos.			
		Pt. Care	Qual. Assur.	Rad. Tech.	Admin. (A)	Pt. Care	Qual. Assur.	Rad. Tech.	Adm. (A)
Decision Making on Quality	1.5	1, 2				87 88			
	2.0	1, 2	1	3		89 90	91	92	
	3.5	1, 2	1, 2	3	3	93 94	95 96	97	98
	5.5			3	3			99	100
	7.0	1, 2	2	3	3	101 102	103	104	105
Figural Skills	1.0	1, 2	2	3		106 107	108	109	
	3.5		2	3			110	111	
	5.0			3				112	
Symbolic Skills	1.5		1, 2	3			113 114	115	
Taxonomic Skills	2.0	2	2	3		116	117	118	
Implicative Skills	1.0	1, 2	1, 2	3		119 120	121 122	123	
	2.0	1, 2	2	3		124 125	126	127	
	5.0	2				128			
Financial Consequences of Error	1.0	1, 2	1, 2	3	3	129 130	131 132	133	134
	4.0		1, 2	3			135 136	137	
Consequences of Error To Humans	1.0	1, 2	1, 2	3	3	138 139	140 141	142	143
	2.0	1, 2	1	3		144 145	146	147	
	3.0	1, 2	1, 2	3		148 149	150 151	152	
	5.5	1, 2	1, 2	3		153 154	155 156	157	
	7.0	1, 2	2	3		158 159	160	161	
11731000 Normal structure and function	2.5			3				162	
11731100 Regional anatomy (head and neck, thorax and abdomen, pelvis and perineum, lower and upper limbs, skeleton)	2.5			3				163	
	3.5		2	3			164	165	
	5.5		2	3			166	167	
	7.0			3				168	

Table 3 (continued)

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Abbreviated Name of Skill or Knowledge Category	Scale Value	Job Levels by Factor				Curriculum Objective Nos.			
		Pt. Care	Qual. Assur.	Rad. Tech.	Admin. (A)	Pt. Care	Qual. Assur.	Rad. Tech.	Adm. (A)
11731200 Topographic anatomy	1.5	1, 2		3		169 170		171	
	2.5	1				172			
	3.5	2		3		173		174	
	5.5			3				175	
	7.0			3				176	
11731300 Hematopoietic system	1.5			3				177	
11731400 Circulatory system (cardiovascular system, lymphatics)	1.5	1, 2		3		178 179		180	
	2.5	2				181			
11731500 Respiratory system	1.5			3				182	
	2.5	2				183			
11731600 Digestive system	1.5			3				184	
11731610 Mouth, pharynx, esophagus	1.5			3				185	
11731620 Stomach, small intestine	1.5			3				186	
11731630 Large intestine, rectum	1.5			3				187	
11731640 Liver, biliary system, pancreas	1.5			3				188	
11731700 Urinary system	1.5			3				189	
	2.5	2				190			
	3.5	2				191			
11731800 Musculoskeletal system	2.5			3				192	
	3.5			3				193	
	5.5			3				194	

Table 3 (continued)

Abbreviated Name of Skill or Knowledge Category	Scale Value	Job Levels by Factor				Curriculum Objective Nos.			
		Pt. Care	Qual. Assur.	Rad. Tech.	Admin. (A)	Pt. Care	Qual. Assur.	Rad. Tech.	Adm. (A)
11731820 Bones and joints	2.5			3				195	
	3.5			3				196	
	7.0			3				197	
11731910 Central nervous system	1.5			3				198	
11731943 Eye and optic nerve	1.5			3				199	
11732222 Male reproductive system	1.5			3				200	
11732223 Female reproductive system	1.5			3				201	
11733200 Neoplasms (cancerous growths)	1.5			3				202	
11733400 Disorders of blood, blood-forming organs	1.5			3				203	
11733510 Disorders of central nervous system	1.5			3				204	
11733600 Disorders of circulatory system	1.5	1, 2		3		205 206		207	
	2.5			3				208	
11733700 Disorders of digestive system	1.5			3				209	
11733800 Disorders of respiratory system	1.5			3				210	
	2.5			3				211	
11733900 Disorders of uro-genital system	1.5			3				212	
11734200 Disorders of musculoskeletal system	1.5			3				213	
	2.5			3				214	
11734300 Congenital abnormalities	1.5			3				215	
11734400 Disorders, complications of pregnancy, birth	1.5			3				216	

Table 3 (continued)

Abbreviated Name of Skill or Knowledge Category	Scale Value	Job Levels by Factor: Pt. Care	Qual. Assur.	Rad. Tech.	Admin. (A)	Curriculum Objective Nos.: Pt. Care	Qual. Assur.	Rad. Tech.	Adm. (A)
11734600 Burns	3.5	2				217			
11734800 Shock and trauma	1.5			3				218	
	2.5			3				219	
	3.5	2				220			
11735000 Surgery	1.5			3				221	
11735100 Operative procedures	1.5	2		3		222		223	
11735300 Repair surgery	1.5			3				224	
11735400 Introductory procedures	1.5	2	1	3		225	226	227	
	2.5	2		3		228		229	
	3.5	2				230			
11735500 Endoscopy	1.5			3				231	
11735600 Suture	1.5	2				232			
11735800 Delivery methods for childbirth	1.5			3				233	
11736000 Anesthesiology	1.5			3				234	
11737000 First aid and care	2.5			3				235	
	3.5			3				236	
	7.0	2				237			
11737100 Bandages, dressings, tourniquets, splints	1.5	1, 2		3		238 239		240	
	2.5	2				241			
	3.5	2				242			
11737200 Hemorrhage, bleeding; their arrest	1.5	1, 2				243 244			
	3.5	2				245			

Table 3 (continued) Page 6 of 8

Abbreviated Name of Skill or Knowledge Category	Scale Value	Job Levels by Factor				Curriculum Objective Nos.			
		Pt. Care	Qual. Assur.	Rad. Tech.	Admin. (A)	Pt. Care	Qual. Assur.	Rad. Tech.	Adm. (A)
11737300 Handling, transportation of sick, wounded	1.5	1				246			
	2.5	1, 2		3		247 248		249	
	3.5	1, 2		3		250 251		252	
	5.5	2		3		253		254	
11737400 Sprains, strains, fractures; their healing	1.5			3				255	
	2.5			3				256	
	3.5	2				257			
11737600 Resuscitation	7.0	2				258			
11737700 Wounds and their healing	1.5	2		3		259		260	
	2.5	2		3		261		262	
	3.5	2				263			
	5.5	2				264			
11738000 Asepsis	1.5	1, 2	1			265 266	267		
	2.5	1, 2	1	3		268 269	270	271	
	3.5	1, 2		3		272 273		274	
12210000 Radiobiology	1.5	1, 2	2			275 276	277		
	2.5	2	2	3		278	279	280	
	3.5		2	3			281	282	
12223000 Diagnostic radiography	1.5		1, 2				283 284		
	2.5	1, 2	1, 2	3		285 286	287 288	289	
	3.5		2	3			290	291	
	5.5		2	3			292	293	
	7.0			3				294	
12300000 Pharmacology	1.5	2	1			295	296		
12331000 Drug toxicity, antidotal therapy	1.5			3				297	
	2.5	2				298			

Table 3 (continued)

Abbreviated Name of Skill or Knowledge Category	Scale Value	Job Levels by Factor				Curriculum Objective Nos.			
		Pt. Care	Qual. Assur.	Rad. Tech.	Admin. (A)	Pt. Care	Qual. Assur.	Rad. Tech.	Adm. (A)
12332000 Drug idiosyncrasy, allergy pharmacogenetics	1.5			3				299	
	2.5	2				300			
12334000 Drug tolerance, physical dependence	2.5	2				301			
12335000 Drug synergism	2.5	2				302			
12336000 Chemical teratogenesis	2.5	2				303			
12341100 Antibacterial, antifungal chemotherapy	2.5	2				304			
	3.5	2				305			
12341300 Cancer and virus chemotherapy	2.5	2				306			
	3.5	2				307			
12342100 Drugs acting on cardiovascular system, smooth muscle	1.5	2				308			
	2.5	2				309			
	3.5	2				310			
12342200 Drugs acting on the blood	2.5	2				311			
	3.5	2				312			
12342300 Hormones, drugs acting on endocrine glands, accessory reproductive organs	2.5	2				313			
	3.5	2				314			
12342600 Drugs for allergy, cough, vomiting	2.5	2				315			
	3.5	2				316			
12342700 Drugs acting on gastrointestinal tract	2.5	2				317			
	3.5	2				318			
12342810 Drugs acting on autonomic nervous system	2.5	2				319			
	3.5	2				320			

Table 3 (continued)

Abbreviated Name of Skill or Knowledge Category	Scale Value	Job Levels by Factor				Curriculum Objective Nos.			
		Pt. Care	Qual. Assur.	Rad. Tech.	Admin. (A)	Pt. Care	Qual. Assur.	Rad. Tech.	Adm. (A)
12342820 Drugs acting on neuromuscular system	2.5 3.5	2 2				321 322			
12342830 Drugs acting on central nervous system	1.5			3				323	
	2.5	2				324			
	3.5	2				325			
12342900 Drugs acting on immunologic system	2.5	2				326			
	3.5	2				327			
15212100 Electric circuit theory	1.5		2				328		
15222500 Interaction with radiation	1.5	2	2	3		329	330	331	
24110000 Electromagnetic field theory applications	1.5		2				332		
24132100 Electronic devices	1.5		2				333		
33000000 Computer technology	1.5		1, 2	3			334 335	336	
41666700 Death and dying behavioral development	1.5			3				337	
51200000 Algebra	1.5		2	3			338	339	
52220000 Descriptive statistics	1.5		2				340		
65260000 Photography, cinematography	1.5		2				341		
65620000 Mechanics of writing English	1.5	2	2			342	343		
	2.5			3				344	
	3.5		2				345		
Procedural Objectives (task sequences)	-	1, 2	1, 2	3	3	346 347	348 349	350	351

Note: Tables 4, 5 and 6 include the task code numbers for each curriculum objective. Appendix B and Table 2 present the full names of the knowledge categories. Appendix C contains the scales. The curriculum objectives are presented in numerical order in Chapter 8 of Volume 2 of this report.

Table 4. CURRICULUM OUTLINE ASSUMING THAT RADIOLOGIC TECHNOLOGIST OCCUPATION IS REACHED IN THREE STAGES AND COMBINES THE QUALITY ASSURANCE AND RADIOLOGIC TECHNOLOGY FACTORS

Skill or Knowledge Category (abbreviated)	Scale Value	Level 1: Aide		Level 2: Technician		Level 3: Technologist	
		Task Codes	Curric. Ob.Nos.	Task Codes	Curric. Ob.Nos.	Task Codes	Curric. Ob.Nos.
Factors:		Quality Assurance (VI)				Rad. Technology (III)	
Object Manipulation Skills	1.5	71 79 145 167 192 260 267 273 304 319	3	178 524 525 527 529 530 531 532 534 535 536 537 538 539 545 548 550	4	355 356 357 358 359 360 361 362 363 364 366 367 368 370 371 372 373 374 378 379 381 382 383 384 385 386 387 389 463 464 465 466 467 468 512 515 517	5
	3.5	72 95 180 269 275 284 551 552	8	173 175 187 276 543 544 553	9	365 375 376 377 380 388 390 491 492 493 494 495 496 497 498 499 500 501 502 503 504 505 506 507 508 509 510 511 513 514 516 518 519 526	10
	5.0	69	12				

Note: Curric. Ob. Nos. = curriculum objective numbers. These appear in numerical order in Chapter 8 of Volume 2. Abbreviated task names are presented in Appendixes A and E.

Table 4 (continued)

Skill or Knowledge Category (abbreviated)	Scale Value	Level 1: Aide		Level 2: Technician		Level 3: Technologist	
		Task Codes	Curric. Ob.Nos.	Task Codes	Curric. Ob.Nos.	Task Codes	Curric. Ob.Nos.
Factors:		Quality Assurance (VI)				Rad. Technology(III)	
Guiding or Steering Skills	1.5	136 288	15	524	16	355 356 357 358 359 360 361 362 363 364 365 366 367 368 369 370 371 372 373 374 375 376 377 378 379 380 381 382 383 384 385 386 387 388 389 390 463 465 466 467 468 491 492 493 494 495 496 499 500 501 502 503 504 505 506 507 508 509 510 511 512 513 514 515 516 517 518 519 526	17
Human Interaction Skills	1.0	8 69 70 71 72 79 80 95 134 135 136 137 163 164 180 184 227 260 267 269 274 275 284 285 286 288 297 300 304 354 552	22	78 173 178 187 276 523 524 525 527 534 536 538 553 554 556	23	372 373 464	24

(continued on next page)

Table 4 (continued)

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Skill or Knowledge Category (abbreviated)	Scale Value	Level 1: Aide		Level 2: Technician		Level 3: Technologist	
		Task Codes	Curric. Ob.Nos.	Task Codes	Curric. Ob.Nos.	Task Codes	Curric. Ob.Nos.
Factors:		Quality Assurance (VI)				Rad. Technology (III)	
Human Interaction Skills (continued)	3.0	145 147 192	28	175 280 529 530 531 532 533 535 537 539 540 543 544 545 548 549 550	29	81 280 353 369 370 371	30
	5.0					355 356 357 358 359 360 361 362 363 364 365 366 367 368 374 375 376 377 378 379 380 381 382 383 384 385 386 387 388 389 390 463 465 466 467 468 491 492 493 494 495 496 497 498 499 500 501 502 503 504 505 506 507 508 509 510 511 512 513 514 515 516 517 518 519 526	34
Leadership Skills	1.0	354	38				

Table 4 (continued)

Skill or Knowledge Category (abbreviated)	Scale Value	Level 1: Aide		Level 2: Technician		Level 3: Technologist	
		Task Codes	Curric. Ob.Nos.	Task Codes	Curric. Ob.Nos.	Task Codes	Curric. Ob.Nos.
Factors:		Quality Assurance (VI)				Rad. Technology(III)	
Oral Use of a Relevant Language	2.0	8 69 70 71 79 80 95 134 135 136 137 145 163 164 184 227 260 273 275 284 285 286 288 297 300 304 354 552	44	78 173 178 187 276 523 524 525 534 536 538 553 554 556	45		
	4.0	147 192	49	175 280 527 529 530 531 532 533 535 537 539 540 543 544 545 548 549 550	50	81 280 353 369 370 371 372 373 491 492 493 494 495 497 498 504 505 507 509 510 511 512 513 514 515 516 517 518 519	51
	7.5					355 356 357 358 359 360 361 362 363 364 365 366 367 368 374 375 376 377 378 379 380 381 382 383 384 385 386 387 388 389 390 463 464 465 466 467 468 496 499 500 501 502 503 506 508 526	53

Table 4 (continued)

Skill or Knowledge Category (abbreviated)	Scale Value	Level 1: Aide Task Codes	Level 1: Aide Curric. Ob.Nos.	Level 2: Technician Task Codes	Level 2: Technician Curric. Ob.Nos.	Level 3: Technologist Task Codes	Level 3: Technologist Curric. Ob.Nos.
Factors:		Quality Assurance (VI)				Rad. Technology(III)	
Reading Use of a Relevant Language	2.0	69 71 72 79 80 95 134 135 136 137 147 163 164 180 192 222 227 260 264 267 269 274 275 284 285 286 288 300 304 354	56	78 175 178 187 534	57	353 370 371 372 373	58
	5.0	8 70 273	61	276 280 523 524 525 527 529 530 531 532 533 535 537 538 539 540 543 544 545 548 549 550 553 554 556	62	81 280 355 356 357 358 359 360 361 362 363 364 365 366 367 368 369 374 375 376 377 378 379 380 381 382 383 384 385 386 387 388 389 390 463 464 465 466 467 468 491 492 493 494 495 496 497 498 499 500 501 502 503 504 505 506 507 508 509 510 511 512 513 514 515 516 517 518 519 526	63

Table 4 (continued) Page 6 of 29

Skill or Knowledge Category (abbreviated)	Scale Value	Level 1: Aide		Level 2: Technician		Level 3: Technologist	
		Task Codes	Curric. Ob.Nos.	Task Codes	Curric. Ob.Nos.	Task Codes	Curric. Ob.Nos.
Factors:		Quality Assurance (VI)				Rad. Technology(III)	
Written Use of a Relevant Language	2.0	134	66	173 175 178 187 276 525 529 530 531 532 533 534 535 536 537 538 539 540 543 544 545 548 549 556	67	81 353 355 356 357 358 359 360 361 362 363 364 365 366 367 368 370 371 372 373 374 375 376 377 378 379 380 381 382 383 384 385 386 387 388 389 390 463 464 465 466 467 468 491 492 493 494 495 496 497 498 499 500 501 502 503 504 505 506 507 508 509 510 511 512 513 514 515 516 517 518 519 526	68
	5.0			550 554	70		

Table 4 (continued) Page 7 of 29

Skill or Knowledge Category (abbreviated)	Scale Value	Level 1: Aide Task Codes	Level 1: Aide Curric. Ob.Nos.	Level 2: Technician Task Codes	Level 2: Technician Curric. Ob.Nos.	Level 3: Technologist Task Codes	Level 3: Technologist Curric. Ob.Nos.
Factors:		Quality Assurance (VI)				Rad. Technology(III)	
Decision Making on Methods	1.5	8 69 70 72 79 134 145 163 164 167 192 223 267 297 552	73	523	74	353 370 371 372 373	75
	3.0	71 80 95 135 136 147 184 227 273 274 275 284 300 304 354	79	78 173 175 178 187 524 527 533 536 538 553 554	80	81 374 375 376 377 378 379 380 381 382 383 384 385 386 387 388 389 390 463 464 465 466 467 468 497 498 499 500 501 502 503 504 505 506 507 508 509 510 511 512 513 514 515 516 517 518 519 526	81
	4.5			276 525 529 530 531 532 534 535 537 539 540 543 544 545 548 549 550 556	84	355 356 357 358 359 360 361 362 363 364 365 366 367 368 369 491 492 493 494 495 496	85

Table 4 (continued)

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Skill or Knowledge Category (abbreviated)	Scale Value	Level 1: Aide Task Codes	Level 1: Aide Curric. Ob.Nos.	Level 2: Technician Task Codes	Level 2: Technician Curric. Ob.Nos.	Level 3: Technologist Task Codes	Level 3: Technologist Curric. Ob.Nos.
Factors:		Quality Assurance (VI)				Rad. Technology(III)	
Decision Making on Quality	2.0	275 297	91			464	92
	3.5	8 70 71 72 80 95 134 135 147 167 192 223 227 260 269 273 284 286 304 319 354 551 552	95	78 173 175 178 187 276 280 523 524 534 536 538 554	96	280 369	97
	5.5					355 356 357 358 359 360 361 362 363 364 365 366 367 368 370 371 372 373 374 375 376 377 378 379 380 381 382 383 384 385 386 387 388 389 390 463 465 466 467 468 491 492 493 494 495 496 497 498 499 500 501 502 503 504 505 506 507 508 509 510 511 512 513 514 515 516 517 518 519 526	99

(continued on next page)

Table 4 (continued)

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Skill or Knowledge Category (abbreviated)	Scale Value	Level 1: Aide		Level 2: Technician		Level 3: Technologist	
		Task Codes	Curric. Ob.Nos.	Task Codes	Curric. Ob.Nos.	Task Codes	Curric. Ob.Nos.
Factors:		Quality Assurance (VI)				Rad. Technology(III)	
Decision Making on Quality (continued)	7.0			525 527 529 530 531 532 533 535 537 539 540 543 544 545 548 549 550 553 556	103	81 353	104
Symbolic Skills	1.5	134 147	113	173 175 525 529 530 531 532 535 536 537 538 539 543 544 548 549 550 553 556	114	355 356 357 358 359 360 361 362 363 364 365 366 367 368 370 371 372 373 374 375 376 377 378 379 380 381 382 383 384 385 386 387 388 389 390 463 464 465 466 467 468 491 492 493 494 495 496 497 498 499 500 501 502 503 504 505 506 507 508 509 510 511 512 513 514 515 516 517 518 519	115

Table 4 (continued)

Skill or Knowledge Category (abbreviated)	Scale Value	Level 1: Aide		Level 2: Technician		Level 3: Technologist	
		Task Codes	Curric. Ob.Nos.	Task Codes	Curric. Ob.Nos.	Task Codes	Curric. Ob.Nos.
Factors:		Quality Assurance (VI)				Rad. Technology(III)	
Implicative Skills	1.0	8 70 275 354	121	173 175 178 523 527 529 530 531 532 533 535 537 538 539 540 543 544 545 548 549 556	122	370 371 372 373	123
	2.0			78 276 280 524 525 550	126	81 280 353 355 356 357 358 359 360 361 362 363 364 365 366 367 368 369 374 375 376 377 378 379 380 381 382 383 384 385 386 387 388 389 390 463 464 465 466 467 468 491 492 493 494 495 496 497 498 499 500 501 502 503 504 505 506 507 508 509 510 511 512 513 514 515 516 517 518 519 526	127

Table 4 (continued)

Skill or Knowledge Category (abbreviated)	Scale Value	Level 1: Aide Task Codes	Level 1: Aide Curric. Ob.Nos.	Level 2: Technician Task Codes	Level 2: Technician Curric. Ob.Nos.	Level 3: Technologist Task Codes	Level 3: Technologist Curric. Ob.Nos.
Factors:		Quality Assurance (VI)				Rad. Technology(III)	
Financial Consequences of Error	1.0	8 69 70 71 72 79 80 95 134 135 136 137 145 163 164 167 180 192 222 227 260 267 269 273 274 275 284 285 286 288 297 304 319 354 551 552	131	78 173 280 523 524 525 527 529 530 531 532 533 534 536 537 538 539 540 543 544 545 548 549 550 553 554 556	132	280 353 355 356 357 358 359 360 361 362 363 364 365 366 367 368 369 374 375 376 377 378 379 380 381 382 383 384 385 386 387 388 389 390 463 464 465 466 467 468 491 492 493 494 495 496 497 498 499 500 501 502 503 504 505 506 507 508 509 510 511 512 513 514 515 516 517 518 519 526	133
	4.0	147	135	175 178 276 535	136	370 371 372 373	137

Table 4 (continued)

Skill or Knowledge Category (abbreviated)	Scale Value	Level 1: Aide		Level 2: Technician		Level 3: Technologist	
		Task Codes	Curric. Ob.Nos.	Task Codes	Curric. Ob.Nos.	Task Codes	Curric. Ob.Nos.
Factors:		Quality Assurance (VI)				Rad. Technology (III)	
Consequences of Error To Humans	1.0	8 72 95 134 135 136 145 147 163 164 167 184 222 223 227 260 264 267 269 274 275 284 285 286 288 297 300 354	140	78 173 175 187	141	353	142
	2.0	137 180 319	146			466 468	147
	3.0	70 79	150	276 527 529 530 534 549	151	369 467	152
	5.5	69 71 80 192 273 304 551 552	155	178 280 523 524 525 531 532 533 536 537 538 539 544 553 554 556	156	81 280 355 356 357 358 359 362 364 371 377 378 379 381 382 384 385 386 514 516 526	157
	7.0			535 540 543 545 548 550	160	360 361 363 365 366 367 368 370 372 373 374 375 376 380 383 387 388 389 390 463 464 465 491 492 493 494 495 496 497 498 499 500 501 502 503 504 505 506 507 508 509 510 511 512 513 515 517 518 519	161

Table 4 (continued)

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Skill or Knowledge Category (abbreviated)	Scale Value	Level 1: Aide Task Codes	Level 1: Aide Curric. Ob.Nos.	Level 2: Technician Task Codes	Level 2: Technician Curric. Ob.Nos.	Level 3: Technologist Task Codes	Level 3: Technologist Curric. Ob.Nos.
Factors:		Quality Assurance (VI)				Rad. Technology(III)	
11735400 Introductory procedures	1.5	260 304	226			353 377 378 380 382 383 385 386 387 388 389 390 463 497 499 500 501 502 503 504 505 506 507 508 509 510 511 512 513 514 515 516 517 518 519 526	227
	2.5					465	229

Table 4 (continued)

Skill or Knowledge Category (abbreviated)	Scale Value	Level 1: Aide Task Codes	Level 1: Aide Curric. Ob.Nos.	Level 2: Technician Task Codes	Level 2: Technician Curric. Ob.Nos.	Level 3: Technologist Task Codes	Level 3: Technologist Curric. Ob.Nos.
Factors:		Quality Assurance (VI)				Rad. Technology(III)	
11738000 Asepsis	1.5	180 260 304	267				
	2.5	79 80	270			355 356 357 358 359 360 361 362 363 364 365 366 367 368 369 374 381 382 383 384	271
	3.5					353 370 371 372 373 375 376 377 378 379 380 385 386 387 388 389 390 463 464 465 466 467 468 491 492 493 494 495 496 497 498 499 500 501 502 503 504 505 506 507 508 509 510 511 512 513 514 515 516 517 518 519 526	274

Table 4 (continued)

Skill or Knowledge Category (abbreviated)	Scale Value	Level 1: Aide Task Codes	Level 1: Aide Curric. Ob.Nos.	Level 2: Technician Task Codes	Level 2: Technician Curric. Ob.Nos.	Level 3: Technologist Task Codes	Level 3: Technologist Curric. Ob.Nos.
Factors:		Quality Assurance (VI)				Rad. Technology (III)	
12223000 Diagnostic radiography	1.5	8 275	283	523 524	284		
	2.5	147	287	78 178 187 525 527 536	288	369	289
	3.5			173 175 529 530 531 532 533 534 535 537 538 539 540 543 544 548 549 550 553 556	290	372 373 464	291
	5.5			545	292	355 356 357 358 359 360 361 362 363 364 365 366 367 368 370 371 374 375 376 377 378 379 380 381 382 383 384 385 386 387 388 389 390 463 465 466 467 468 491 492 493 494 495 496 497 498 499 500 501 502 503 504 505 506 507 508 509 510 511 512 513 514 515 516 517 518 519 526	293
	7.0					81 353	294

Table 4 (continued)

Skill or Knowledge Category (abbreviated)	Scale Value	Level 1: Aide Task Codes	Level 1: Aide Curric. Ob.Nos.	Level 2: Technician Task Codes	Level 2: Technician Curric. Ob.Nos.	Level 3: Technologist Task Codes	Level 3: Technologist Curric. Ob.Nos.
Factors:		Quality Assurance (VI)				Rad. Technology (III)	
12300000 Pharmacology	1.5	260 304	296				
33000000 Computer technology	1.5	8	334	523 525 527	335	526	336
Procedural Objective (task sequences and equipment not elsewhere covered)	-	8 69 70 71 72 79 80 95 134 135 136 137 145 147 163 164 167 180 184 192 222 223 227 260 264 267 269 273 274 275 284 285 286 288 297 300 304 319 354 551 552	348				
		Level 1 Quality Assurance curriculum ends here.					

Table 4 (continued)

Skill or Knowledge Category (abbreviated)	Scale Value	Level 1: Aide	Level 2: Technician		Level 3: Technologist	
		Not Required	Task Codes	Curric. Ob.Nos.	Task Codes	Curric. Ob.Nos.
Factors:			Quality Assurance (VI)		Rad. Technology (III)	
Figural Skills	1.0		78 175 524 527 529 530 531 532 533 534 535 536 538 539 540 544 548 549	108	372	109
	3.5		525 537 545 550	110	355 356 357 358 359 360 361 362 363 364 365 366 367 368 370 371 373 375 376 377 378 379 381 382 383 384 385 386 387 388 389 390 463 465 466 467 468 491 492 493 494 495 496 497 498 499 500 501 502 503 504 505 506 507 508 509 510 511 512 513 514 515 516 517 518 519 526	111
	5.0				81 374	112

Table 4 (continued)

Skill or Knowledge Category (abbreviated)	Scale Value	Level 1: Aide	Level 2: Technician		Level 3: Technologist	
		Not Required	Task Codes	Curric. Ob.Nos.	Task Codes	Curric. Ob.Nos.
Factors:			Quality Assurance (VI)		Rad. Technology (III)	
Taxonomic Skills	2.0		523 543 550	117	81 355 356 357 358 359 360 361 362 363 364 365 366 367 368 369 370 371 372 373 374 375 376 377 378 379 380 381 382 383 384 385 386 387 388 389 390 463 464 465 466 467 468 491 492 493 494 495 496 497 498 499 500 501 502 503 504 505 506 507 508 509 510 511 512 513 514 515 516 517 518 519 526	118
11731100 Regional anatomy	2.5				372 464	163
	3.5		78 527	164	355 356 357 358 359 360 361 362 363 364 365 366 367 368 370 371 373 375 376 377 378 379 380 381 382 383 384 385 386 387 388 389 390 463 465 466 467 468 491 492 493 494 495 496 497 498 499 500 501 502 503 504 505 506 507 508 509 510 511 512 513 514 515 516 517 518 519	165

(continued on next page)

Table 4 (continued)

Skill of Knowledge Category (abbreviated)	Scale Value	Level 1: Aide	Level 2: Technician		Level 3: Technologist	
		Not Required	Task Codes	Curric. Ob.Nos.	Task Codes	Curric. Ob.Nos.
Factors:			Quality Assurance (VI)		Rad. Technology (III)	
11731100 Regional anatomy (continued)	5.5		545	166	81 374 526	167
	7.0				353	168
12210000 Radiobiology	1.5		173 175 178 187 523 524 525 536 538 553 554	277		
	2.5		280 529 530 531 532 533 534 535 537 539 540 543 544 548 549 550 556	279	280 369	280
	3.5		545	281	81 353 355 356 357 358 359 360 361 362 363 364 365 366 367 368 370 371 372 373 374 375 376 377 378 379 380 381 382 383 384 385 386 387 388 389 390 463 464 465 466 467 468 491 492 493 494 495 496 497 498 499 500 501 502 503 504 505 506 507 508 509 510 511 512 513 514 515 516 517 518 519 526	282

Table 4 (continued)

Skill or Knowledge Category (abbreviated)	Scale Value	Level 1: Aide Not Required	Level 2: Technician Task Codes	Curric. Ob.Nos.	Level 3: Technologist Task Codes	Curric. Ob.Nos.
Factors:			Quality Assurance (VI)		Rad. Technology (III)	
15212100 Electric circuit theory	1.5		532 535 536 543 556	328		
15222500 Interaction with radiation	1.5		173 175 178 187 280 529 530 531 532 533 534 535 537 538 539 540 543 544 545 548 549 550 556	330	280 353 355 356 357 358 359 360 361 362 363 364 365 366 367 368 369 370 371 372 373 374 375 376 377 378 379 380 381 382 383 384 385 386 387 388 389 390 463 464 465 466 467 468 491 492 493 494 495 496 497 498 499 500 501 502 503 504 505 506 507 508 509 510 511 512 513 514 515 516 517 518 519 526	331
24110000 Electromagnetic field theory applications	1.5		535	332		
24132100 Electronic devices	1.5		532 535 545 548 549 550 556	333		
51200000 Algebra	1.5		173 529 530 531 535	338	355 356 357 358 359 360 361 362 365 375 491 492 493 494 495 496 511 518	339
52220000 Descriptive statistics	1.5		535 538 543 544 553	340		
65260000 Photography, cinematography	1.5		543	341		

Table 4 (continued) Page 21 of 29

Skill or Knowledge Category (abbreviated)	Scale Value	Level 1: Aide Not Required	Level 2: Technician Task Codes	Curric. Ob.Nos.	Level 3: Technologist Task Codes	Curric. Ob.Nos.
Factors:			Quality Assurance (VI)		Rad. Technology (III)	
65620000 Mechanics of writing English	1.5		173 175 178 187 525 529 530 531 532 533 534 535 536 537 538 539 540 543 544 545 548 549 550 556	343		
	2.5				81 353 355 356 357 358 359 360 361 362 363 364 365 366 367 368 370 371 372 373 374 375 376 377 378 379 380 381 382 383 384 385 386 387 388 389 390 463 464 465 466 467 468 491 492 493 494 495 496 497 498 499 500 501 502 503 504 505 506 507 508 509 510 511 512 513 514 515 516 517 518 519 526	344
	3.5		554	345		
Procedural Objective (task sequences and equipment not elsewhere covered)	-		78 173 175 178 187 276 280 523 524 525 527 529 530 531 532 533 534 535 536 537 538 539 540 543 544 545 548 549 550 553 554 556	349		
			Level 2 Quality Assurance curriculum ends here.			

Skill or Knowledge Category (abbreviated)	Scale Value	Level 1: Aide	Level 2: Tecn.	Level 3: Technologist	
		Not Required	Not Required	Task Codes	Curric. Ob.Nos.
Factors:				Radiologic Technology (III)	
11731000 Normal structure and function	2.5			353 362 363 368 371 376 378 381 382 383 384 385 386 387 388 389 390 463 465 496 500 501 502 503 511 512 513 515 516 518 519	162
11731200 Topographic anatomy	1.5			373	171
	3.5			355 356 357 358 359 360 361 362 363 364 365 366 367 368 370 371 375 376 377 378 379 380 381 382 383 384 385 386 387 388 389 390 463 465 466 467 468 491 492 493 494 495 496 497 498 499 500 501 502 503 504 505 506 507 508 509 510 511 512 513 514 515 516 517 518 519	174
	5.5			374 526	175
*	7.0			353	176
11731300 Hematopoietic system	1.5			516	177
11731400 Circulatory system (cardiovascular, lymphatic)	1.5			362 376 494 502 504 509 510 511 512 513 514 515 516 517 518 519 526	180
11731500 Respiratory system	1.5			362 364 374 378 379 380 494 497 498 526	182
11731600 Digestive system	1.5			363 374 495 526	184
11731610 Mouth, pharynx, esophagus	1.5			364 374 375 381 494 499	185
11731620 Stomach, small intestine	1.5			381 382 499 501	186
11731630 Large intestine, rectum	1.5			383 500 501	187
11731640 Liver, biliary system, pancreas	1.5			371 384 385 386 387	188
11731700 Urinary system	1.5			363 387 388 389 390 463 495 501 502 526	189

* It might be appropriate to go to 11731800, Musculoskeletal system, before presenting the other systems of the body which follow. See below 11731800 in its numerical position.

Table 4 (continued) Page 23 of 29

Skill or Knowledge Category (abbreviated)		Scale Value	Level 1: Aide	Level 2: Tecn.	Level 3: Technologist	
			Not Required	Not Required	Task Codes	Curric. Ob.Nos.
Factors:					Radiologic Technology (III)	
11731800	Musculoskeletal system	2.5			355 356 357 358 359 360 361 362 363 364 365 366 367 368 370 375 376 377 378 379 380 381 382 383 387 388 389 390 463 465 466 467 468 491 492 493 494 495 496 497 498 499 500 501 502 503 504 505 506 507 508 509 510 511 512 513 514 515 516 517 518 519	192
		3.5			374 526	193
		5.5			81 353	194
11731820	Bones and joints	2.5			363 364 367 375 376 378 379 380 381 382 383 387 388 389 390 463 465 466 467 468 495 497 498 499 500 501 502 503 504 505 506 508 509 510 511 512 513 514 515 516 517 518 519	195
		3.5			355 356 357 358 359 360 361 362 365 366 370 374 377 491 492 493 494 496 507 526	196
		7.0			353	197
11731910	Central nervous system	1.5			374 504 505 506 507 508 509 526	198
11731943	Eye and optic nerve	1.5			367	199
11732222	Male reproductive system	1.5			374 503 526	200
11732223	Female reproductive system	1.5			374 465 466 467 468 503 512 526	201

Table 4 (continued) Page 24 of 29

Skill or Knowledge Category (abbreviated)	Scale Value	Level 1: Aide	Level 2: Tecn.	Level 3: Technologist	
		Not Required	Not Required	Task Codes	Curric. Ob.Nos.
Factors:				Radiologic Technology (III)	
11733200 Neoplasms (cancerous growths)	1.5			353 362 363 364 366 368 374 375 376 378 379 380 381 382 383 384 385 386 387 388 389 390 463 465 494 495 498 499 500 501 502 504 505 506 508 509 511 512 514 515 516 518 526	202
11733400 Disorders of blood, blood-forming organs	1.5			516	203
11733510 Disorders of central nervous system	1.5			504 505 506 507 508 509	204
11733600 Disorders of circulatory system	1.5			353 355 356 357 358 359 360 361 363 364 365 366 367 368 369 374 375 377 378 379 380 381 382 383 384 385 386 387 388 389 390 463 464 465 466 467 468 491 492 493 495 496 497 498 499 500 501 503 505 506 507 508 526	207
	2.5			362 376 494 502 504 509 510 511 512 513 514 515 516 517 518 519	208
11733700 Disorders of digestive system	1.5			363 371 375 381 382 383 384 385 386 387 495 499 500 501	209

Table 4 (continued) Page 25 of 29

Skill or Knowledge Category (abbreviated)	Scale Value	Level 1: Aide Not Required	Level 2: Tecn. Not Required	Level 3: Technologist Task Codes	Curric. Ob.Nos.
Factors:				Radiologic Technology (III)	
11733800 Disorders of respiratory system	1.5			353 355 356 357 358 359 360 361 363 364 365 366 367 368 369 375 376 377 381 382 383 384 385 386 387 388 389 390 463 464 465 466 467 468 491 492 493 495 496 497 499 500 501 502 503 504 505 506 507 508 509 510 511 512 513 514 515 516 517 518 519 526	210
	2.5			362 374 378 379 380 494 498	211
11733900 Disorders of uro-genital system	1.5			363 387 388 389 390 463 465 466 495 501 502 512	212
11734200 Disorders of musculo-skeletal system	1.5			363 364 367 369 370 374 375 376 378 379 380 381 382 383 384 385 386 387 388 389 390 463 464 465 466 467 468 495 497 498 499 500 501 502 503 504 505 506 508 509 510 511 512 513 514 515 516 517 518 519 526	213
	2.5			353 355 356 357 358 359 360 361 362 365 366 368 377 491 492 493 494 496 507	214
11734300 Congenital abnormalities	1.5			380 496 497 499 500 501 502 503	215
11734400 Disorders, complications of pregnancy, birth	1.5			466 467 468 512	216

Table 4 (continued) Page 26 of 29

Skill or Knowledge Category (abbreviated)	Scale Value	Level 1: Aide Not Required	Level 2: Tecn. Not Required	Level 3: Technologist Task Codes	 Curric. Ob.Nos.
Factors:				Radiologic Technology (III)	
11734800 Shock and trauma	1.5			369 463 464	218
	2.5			353 355 356 357 358 359 360 361 362 363 364 365 366 367 368 374 375 376 377 378 379 380 381 382 383 384 385 386 387 388 389 390 465 466 467 468 491 492 493 494 495 496 497 498 499 500 501 502 503 504 505 506 507 508 509 510 511 512 513 514 515 516 517 518 519 526	219
11735000 Surgery	1.5			372 373	221
11735100 Operative procedures	1.5			371 379 464	223
11735300 Repair surgery	1.5			370	224
11735500 Endoscopy	1.5			379	231
11735800 Delivery methods (childbirth)	1.5			466 468	233
11736000 Anesthesiology	1.5			370 371 372 373 463 498 511 513 514 516 518 519 526	234
11737000 First aid and care	2.5			353 355 356 357 358 359 360 361 362 363 364 365 366 367 368 374 466 468	235
	3.5			509 510 511 512 513 514 515 516 517 519	236
11737100 Bandages, dressings, tourniquets, splints	1.5			504 505 506 507 508 509 510 511 512 514 515 517 518	240
11737300 Handling, transportation of sick, wounded	2.5			369	249
	3.5			370 371 464	252

(continued on next page)

Table 4 (continued)

Skill or Knowledge Category (abbreviated)	Scale Value	Level 1: Aide	Level 2: Tecn.	Level 3: Technologist	
		Not Required	Not Required	Task Codes	Curric. Ob.Nos.
Factors:				Radiologic Technology (III)	
11737300 Handling, transportation of sick, wounded (continued)	5.5			353 355 356 357 358 359 360 361 362 363 364 365 366 367 368 374 375 376 377 378 379 380 381 382 383 384 385 386 387 388 389 390 463 465 466 467 468 491 492 493 494 495 496 497 498 499 500 501 502 503 504 505 506 507 508 509 510 511 512 513 514 515 516 517 518 519 526	254
11737400 Sprains, strains, fractures; their healing	1.5			363 364 367 368 369 374 375 376 378 379 380 381 382 383 384 385 386 387 388 389 390 463 464 465 466 467 468 495 497 498 499 500 501 502 503 504 505 506 508 509 510 511 512 513 514 515 516 517 518 519 526	255
	2.5			353 355 356 357 358 359 360 361 362 365 366 370 377 491 492 493 494 496 507	256

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Table 4 (continued)

Skill or Knowledge Category (abbreviated)	Scale Value	Level 1: Aide	Level 2: Tecn.	Level 3: Technologist	
		Not Required	Not Required	Task Codes	Curric. Ob.Nos.
Factors:				Radiologic Technology (III)	
11737700 Wounds and their healing	1.5			353 355 356 357 358 359 360 361 362 363 364 365 366 367 368 369 374 375 376 377 378 379 380 381 382 383 384 385 386 387 388 389 390 463 464 465 466 467 468 491 492 493 494 495 496 497 498 499 500 501 502 504 505 506 507 508 509 510 511 512 513 514 515 516 517 518 519 526	260
	2.5			503	262
12331000 Drug toxicity, antidotal therapy	1.5			375 376 377 378 380 384 385 387 388 389	297
12332000 Drug idiosyncrasy, allergy pharmacogenetics	1.5			375 376 377 378 380 384 385 387 388 389	299
12342830 Drugs acting on central nervous system	1.5			353 355 356 357 358 359 360 361 362 363 364 365 366 374 375 376 377 378 379 380 386 388 389 390 465 467 491 492 493 494 495 496 499 500 501 502 503 504 505 506 507 508 509 510 511 512 513 514 515 516 517 518 519 526	323

Table 4 (continued) Page 29 of 29

Skill or Knowledge Category (abbreviated)	Scale Value	Level 1: Aide Not Required	Level 2: Tecn. Not Required	Level 3: Technologist Task Codes	Curric. Ob.Nos.
Factors:				Radiologic Technology (III)	
41666700 Death and dying behavioral development	1.5			353 362 363 364 365 366 368 374 376 378 381 382 383 385 386 387 388 389 390 463 465 498 499 500 501 502 504 505 506 508 509 511 512 513 514 515 516 517 518 519 526	337
Procedural Objective (task sequences and equipment not elsewhere covered)				81 280 353 355 356 357 358 359 360 361 362 363 364 365 366 367 368 369 370 371 372 373 374 375 376 377 378 379 380 381 382 383 384 385 386 387 388 389 390 463 464 465 466 467 468 491 492 493 494 495 496 497 498 499 500 501 502 503 504 505 506 507 508 509 510 511 512 513 514 515 516 517 518 519 526	350
				Level 3 Radiologic Technology curriculum ends here.	

Note: The assignment of tasks to factors and levels is presented in Appendix E. The scales are presented in Appendix C. The full knowledge category names appear in Appendix B and Table 2.

Table 5. CURRICULUM OUTLINE ASSUMING THAT RADIOLOGIC TECHNOLOGIST OCCUPATION IS REACHED IN THREE STAGES AND COMBINES THE PATIENT CARE AND RADIOLOGIC TECHNOLOGY FACTORS

Page 1 of 30

Skill or Knowledge Category (abbreviated)	Scale Value	Level 1: Aide		Level 2: Technician		Level 3: Technologist	
		Task Codes	Curric. Ob.Nos.	Task Codes	Curric. Ob.Nos.	Task Codes	Curric. Ob.Nos.
Factors:		Patient Care (IV)				Rad. Technology (III)	
Object Manipulation Skills	1.5	98 153 166 199 262 283 292 301 302 303 520 521	1	198 298 308 522	2	355 356 357 358 359 360 361 362 363 364 366 367 368 370 371 372 373 374 378 379 381 382 383 384 385 386 387 389 463 464 465 466 467 468 512 515 517	5
	3.5	287 290	6	156 182 185 243	7	365 375 376 377 380 388 390 491 492 493 494 495 496 497 498 499 500 501 502 503 504 505 506 507 508 509 510 511 513 514 516 518 519 526	10
	5.0			18 33 65 133 296 299	11		
	7.5			143 181	13		

Note: Curric. Ob. Nos. = curriculum objective numbers. These appear in numerical order in Chapter 8 of Volume 2. Abbreviated task names are presented in Appendixes A and E.

Table 5 (continued)

Skill or Knowledge Category (abbreviated)	Scale Value	Level 1: Aide		Level 2: Technician		Level 3: Technologist	
		Task Codes	Curric. Ob.Nos.	Task Codes	Curric. Ob.Nos.	Task Codes	Curric. Ob.Nos.
Factors:		Patient Care (IV)				Rad. Technology (III)	
Guiding or Steering Skills	1.5	287 302	14			355 356 357 358 359 360 361 362 363 364 365 366 367 368 369 370 371 372 373 374 375 376 377 378 379 380 381 382 383 384 385 386 387 388 389 390 463 465 466 467 468 491 492 493 494 495 496 499 500 501 502 503 504 505 506 507 508 509 510 511 512 513 514 515 516 517 518 519 526	17
	3.0	190	18	182 185	19		
Human Interaction Skills	1.0	166 190 199 278 279 281 291	20	65	21	372 373 464	24
	3.0	74 98 113 155 193 262 271 282 283 287 289 292 295 301 302 303 520 521	26	18 33 133 156 198 280 298 299 308 522	27	81 280 353 369 370 371	30

(continued on next page)

Table 5 (continued)

Skill or Knowledge Category (abbreviated)	Scale Value	Level 1: Aide		Level 2: Technician		Level 3: Technologist	
		Task Codes	Curric. Ob.Nos.	Task Codes	Curric. Ob.Nos.	Task Codes	Curric. Ob.Nos.
Factors:		Patient Care (IV)				Rad. Technology(III)	
Human Interaction Skills (continued)	5.0	73 138 153 290 490	32	143 181 182 185 243	33	355 356 357 358 359 360 361 362 363 364 365 366 367 368 374 375 376 377 378 379 380 381 382 383 384 385 386 387 388 389 390 463 465 466 467 468 491 492 493 494 495 496 497 498 499 500 501 502 503 504 505 506 507 508 509 510 511 512 513 514 515 516 517 518 519 526	34
	7.0			296	36		
Oral Use of a Relevant Language	2.0	166 190 271 279 281 283 287 289 291 490	42	308	43		

(continued on next page)

Skill or Knowledge Category (abbreviated)	Scale Value	Level 1: Aide		Level 2: Technician		Level 3: Technologist	
		Task Codes	Curric. Ob.Nos.	Task Codes	Curric. Ob.Nos.	Task Codes	Curric. Ob.Nos.
Factors:		Patient Care (IV)				Rad. Technology (III)	
Oral Use of a Relevant Language (continued)	4.0	73 74 98	47	18 33 65	48	81 280 353	51
		113 138 153		133 143 156		369 370 371	
		155 193 199		181 182 185		372 373 491	
		262 278 282		198 243 280		492 493 494	
		290 292 295		296 298 299		495 497 498	
		302 303 520		522		504 505 507	
		521				509 510 511	
						512 513 514	
						515 516 517	
						518 519	
	7.5					355 356 357	53
						358 359 360	
						361 362 363	
						364 365 366	
						367 368 374	
						375 376 377	
						378 379 380	
						381 382 383	
						384 385 386	
						387 388 389	
						390 463 464	
						465 466 467	
						468 496 499	
						500 501 502	
						503 506 508	
						526	

Table 5 (continued)

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Skill or Knowledge Category (abbreviated)	Scale Value	Level 1: Aide		Level 2: Technician		Level 3: Technologist	
		Task Codes	Curric. Ob.Nos.	Task Codes	Curric. Ob.Nos.	Task Codes	Curric. Ob.Nos.
Factors:		Patient Care (IV)				Rad. Technology(III)	
Reading Use of a Relevant Language	2.0	74 98 153 155 166 190 193 199 262 278 279 281 287 289 290 301 302 303 520	54	18 65 133 143 156 181 182 185 198 296 298 299 308 522	55	353 370 371 372 373	58
	5.0			33 280	60	81 280 355 356 357 358 359 360 361 362 363 364 365 366 367 368 369 374 375 376 377 378 379 380 381 382 383 384 385 386 387 388 389 390 463 464 465 466 467 468 491 492 493 494 495 496 497 498 499 500 501 502 503 504 505 506 507 508 509 510 511 512 513 514 515 516 517 518 519 526	63

Table 5 (continued)

Skill or Knowledge Category (abbreviated	Scale Value	Level 1: Aide		Level 2: Technician		Level 3: Technologist	
		Task Codes	Curric. Ob.Nos.	Task Codes	Curric. Ob.Nos.	Task Codes	Curric. Ob.Nos.
Factors:		Patient Care (IV)				Rad. Technology(III)	
Written Use of a Relevant Language	2.0	278 279 295	64	33 156 181 243 522	65	81 353 355 356 357 358 359 360 361 362 363 364 365 366 367 368 370 371 372 373 374 375 376 377 378 379 380 381 382 383 384 385 386 387 388 389 390 463 464 465 466 467 468 491 492 493 494 495 496 497 498 499 500 501 502 503 504 505 506 507 508 509 510 511 512 513 514 515 516 517 518 519 526	68

Table 5 (continued)

Skill or Knowledge Category (abbreviated)	Scale Value	Level 1: Aide		Level 2: Technician		Level 3: Technologist	
		Task Codes	Curric. Ob.Nos.	Task Codes	Curric. Ob.Nos.	Task Codes	Curric. Ob.Nos.
Factors:		Patient Care (IV)				Rad. Technology(III)	
Decision Making on Methods	1.5	98 199 262 279 281 282 283 287 295 490 520 521	71	143 181 298	72	353 370 371 372 373	75
	3.0	155 166 190 193 278 303	77	18 33 65 133 156 182 185 243 299 308	78	81 374 375 376 377 378 379 380 381 382 383 384 385 386 387 388 389 390 463 464 465 466 467 468 497 498 499 500 501 502 503 504 505 506 507 508 509 510 511 512 513 514 515 516 517 518 519 526	81
	4.5	73 113 138 290	83			355 356 357 358 359 360 361 362 363 364 365 366 367 368 369 491 492 493 494 495 496	85
	7.0			296	86		

Table 5 (continued)

Skill or Knowledge Category (abbreviated)	Scale Value	Level 1: Aide		Level 2: Technician		Level 3: Technologist	
		Task Codes	Curric. Ob.Nos.	Task Codes	Curric. Ob.Nos.	Task Codes	Curric. Ob.Nos.
Factors:		Patient Care (IV)				Rad. Technology(III)	
Decision Making on Quality	1.5	153	87	198	88		
	2.0	193 199	89	308	90	464	92
	3.5	166 262 278 281 282 283 290 291 292 302 303 490 520 521	93	18 33 65 280 298 522	94	280 369	97
	5.5					355 356 357 358 359 360 361 362 363 364 365 366 367 368 370 371 372 373 374 375 376 377 378 379 380 381 382 383 384 385 386 387 388 389 390 463 465 466 467 468 491 492 493 494 495 496 497 498 499 500 501 502 503 504 505 506 507 508 509 510 511 512 513 514 515 516 517 518 519 526	99
	7.0	73 74 113 138 190 287 289 295 301	101	133 143 156 181 182 185 243 296 299	102	81 353	104

Table 5 (continued)

Skill or Knowledge Category (abbreviated)	Scale Value	Level 1: Aide Task Codes	Level 1: Aide Curric. Ob.Nos.	Level 2: Technician Task Codes	Level 2: Technician Curric. Ob.Nos.	Level 3: Technologist Task Codes	Level 3: Technologist Curric. Ob.Nos.
Factors:		Patient Care (IV)				Rad. Technology(III)	
Figural Skills	1.0	262 271	106	308	107	372	109
	3.5					355 356 357 358 359 360 361 362 363 364 365 366 367 368 370 371 373 375 376 377 378 379 381 382 383 384 385 386 387 388 389 390 463 465 466 467 468 491 492 493 494 495 496 497 498 499 500 501 502 503 504 505 506 507 508 509 510 511 512 513 514 515 516 517 518 519 526	111
	5.0					81 374	112

Table 5 (continued)

Skill or Knowledge Category (abbreviated)	Scale Value	Level 1: Aide Task Codes	Level 1: Aide Curric. Ob.Nos.	Level 2: Technician Task Codes	Level 2: Technician Curric. Ob.Nos.	Level 3: Technologist Task Codes	Level 3: Technologist Curric. Ob.Nos.
Factors:		Patient Care (IV)				Rad. Technology(III)	
Implicative Skills	1.0	262 271 283	119	33 65 133 143 156 181 182 185 299 308	120	370 371 372 373	123
	2.0	73 295	124	280	125	81 280 353 355 356 357 358 359 360 361 362 363 364 365 366 367 368 369 374 375 376 377 378 379 380 381 382 383 384 385 386 387 388 389 390 463 464 465 466 467 468 491 492 493 494 495 496 497 498 499 500 501 502 503 504 505 506 507 508 509 510 511 512 513 514 515 516 517 518 519 526	127
	5.0			296	128		

Table 5 (continued)

Skill or Knowledge Category (abbreviated)	Scale Value	Level 1: Aide		Level 2: Technician		Level 3: Technologist	
		Task Codes	Curric. Ob.Nos.	Task Codes	Curric. Ob.Nos.	Task Codes	Curric. Ob.Nos.
Factors:		Patient Care (IV)				Rad. Technology(III)	
Financial Consequences of Error	1.0	73 74 98 113 138 153 155 166 199 262 271 278 282 283 287 289 290 291 303	129	18 33 65 133 143 156 181 185 198 280 296 298 299 308 522	130	280 353 355 356 357 358 359 360 361 362 363 364 365 366 367 368 369 374 375 376 377 378 379 380 381 382 383 384 385 386 387 388 389 390 463 464 465 466 467 468 491 492 493 494 495 496 497 498 499 500 501 502 503 504 505 506 507 508 509 510 511 512 513 514 515 516 517 518 519 526	133
	4.0					370 371 372 373	137

Table 5 (continued)

Skill or Knowledge Category (abbreviated)	Scale Value	Level 1: Aide		Level 2: Technician		Level 3: Technologist	
		Task Codes	Curric. Ob.Nos.	Task Codes	Curric. Ob.Nos.	Task Codes	Curric. Ob.Nos.
Factors:		Patient Care (IV)				Rad. Technology(III)	
Consequences of Error To Humans	1.0	73 74 98 113 155 199 262 278 279 281 287 290 291 302 303 520	138	133 198	139	353	142
	2.0	193 283 289 292 301 490	144	18 156 182	145	466 468	147
	3.0	138 153 166 295	148	33 143 181 185 243	149	369 467	152
	5.5	190 282 521	153	65 280 296 298 299 522	154	81 280 355 356 357 358 359 362 364 371 377 378 379 381 382 384 385 386 514 516 526	157
	7.0	271	158	308	159	360 361 363 365 366 367 368 370 372 373 374 375 376 380 383 387 388 389 390 463 464 465 491 492 493 494 495 496 497 498 499 500 501 502 503 504 505 506 507 508 509 510 511 512 513 515 517 518 519	161

Table 5 (continued)

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Skill or Knowledge Category (abbreviated)	Scale Value	Level 1: Aide		Level 2: Technician		Level 3: Technologist	
		Task Codes	Curric. Ob.Nos.	Task Codes	Curric. Ob.Nos.	Task Codes	Curric. Ob.Nos.
Factors:		Patient Care (IV)				Rad. Technology(III)	
11731200 Topographic anatomy	1.5	199 262 520	169	18 308	170	373	171
	2.5	193	172				
	3.5			133 296 299	173	355 356 357 358 359 360 361 362 363 364 365 366 367 368 370 371 375 376 377 378 379 380 381 382 383 384 385 386 387 388 389 390 463 465 466 467 468 491 492 493 494 495 496 497 498 499 500 501 502 503 504 505 506 507 508 509 510 511 512 513 514 515 516 517 518 519	174
	5.5					374 526	175
	7.0					353	176

Table 5 (continued)

Skill of Knowledge Category (abbreviated)		Scale Value	Level 1: Aide		Level 2: Technician		Level 3: Technologist	
			Task Codes	Curric. Ob.Nos.	Task Codes	Curric. Ob.Nos.	Task Codes	Curric. Ob.Nos.
Factors:			Patient Care (IV)				Rad. Technology (III)	
11731400	Circulatory system (cardio-vascular, lymphatic)	1.5	262 520	178	18 308	179	362 376 494 502 504 509 510 511 512 513 514 515 516 517 518 519 526	180
		2.5			296	181		
11733600	Disorders of circulatory system	1.5	199 262 520	205	308	206	353 355 356 357 358 359 360 361 363 364 365 366 367 368 369 374 375 377 378 379 380 381 382 383 384 385 386 387 388 389 390 463 464 465 466 467 468 491 492 493 495 496 497 498 499 500 501 503 505 506 507 508 526	207
		2.5					362 376 494 502 504 509 510 511 512 513 514 515 516 517 518 519	208

Table 5 (continued) Page 15 of 30

Skill or Knowledge Category (abbreviated)	Scale Value	Level 1: Aide		Level 2: Technician		Level 3: Technologist	
		Task Codes	Curric. Ob.Nos.	Task Codes	Curric. Ob.Nos.	Task Codes	Curric. Ob.Nos.
Factors:		Patient Care (IV)				Rad. Technology(III)	
11737100 Bandages, dressings, tourniquets, splints	1.5	283 295	238	33 522	239	504 505 506 507 508 509 510 511 512 514 515 517 518	240
	2.5			156	241		
	3.5			296	242		
11737200 Hemorrhage, bleeding; their arrest	1.5	521	243	522	244		
	3.5			296	245		
11737300 Handling, transportation of sick, wounded	1.5	153 155 295	246				
	2.5	166 190 282	247	243	248	369	249
	3.5	193 199 283 490	250	156	251	370 371 464	252
	5.5			296	253	353 355 356 357 358 359 360 361 362 363 364 365 366 367 368 374 375 376 377 378 379 380 381 382 383 384 385 386 387 388 389 390 463 465 466 467 468 491 492 493 494 495 496 497 498 499 500 501 502 503 504 505 506 507 508 509 510 511 512 513 514 515 516 517 518 519 526	254

Skill or Knowledge Category (abbreviated)	Scale Value	Level 1: Aide Task Codes	Level 1: Aide Curric. Ob.Nos.	Level 2: Technician Task Codes	Level 2: Technician Curric. Ob.Nos.	Level 3: Technologist Task Codes	Level 3: Technologist Curric. Ob.Nos.
Factors:		Patient Care (IV)				Rad. Technology(III)	
11738000 Asepsis	1.5	193 290	265	18	266		
	2.5	153 283 295 521	268	33 522	269	355 356 357 358 359 360 361 362 363 364 365 366 367 368 369 374 381 382 383 384	271
	3.5	166 490 520	272	65 133 143 156 181 296 299 308	273	353 370 371 372 373 375 376 377 378 379 380 385 386 387 388 389 390 463 464 465 466 467 468 491 492 493 494 495 496 497 498 499 500 501 502 503 504 505 506 507 508 509 510 511 512 513 514 515 516 517 518 519 526	274

Table 5 (continued) Page 17 of 30

Skill or Knowledge Category (abbreviated)	Scale Value	Level 1: Aide Task Codes	Level 1: Aide Curric. Ob.Nos.	Level 2: Technician Task Codes	Level 2: Technician Curric. Ob.Nos.	Level 3: Technologist Task Codes	Level 3: Technologist Curric. Ob.Nos.
Factors:		Patient Care (IV)				Rad. Technology(III)	
12210000 Radiobiology	1.5	520	275	308	276		
	2.5			280	278	280 369	280
	3.5					81 353 355 356 357 358 359 360 361 362 363 364 365 366 367 368 370 371 372 373 374 375 376 377 378 379 380 381 382 383 384 385 386 387 388 389 390 463 464 465 466 467 468 491 492 493 494 495 496 497 498 499 500 501 502 503 504 505 506 507 508 509 510 511 512 513 514 515 516 517 518 519 526	282

Table 5 (continued)

Skill or Knowledge Category (abbreviated)	Scale Value	Level 1: Aide		Level 2: Technician		Level 3: Technologist	
		Task Codes	Curric. Ob.Nos.	Task Codes	Curric. Ob.Nos.	Task Codes	Curric. Ob.Nos.
Factors:		Patient Care (IV)				Rad. Technology (III)	
12223000 Diagnostic radiography	2.5	73 74	285	65	286	369	289
	3.5					372 373 464	291
	5.5					355 356 357 358 359 360 361 362 363 364 365 366 367 368 370 371 374 375 376 377 378 379 380 381 382 383 384 385 386 387 388 389 390 463 465 466 467 468 491 492 493 494 495 496 497 498 499 500 501 502 503 504 505 506 507 508 509 510 511 512 513 514 515 516 517 518 519 526	293
	7.0					81 353	294
Procedural Objective (task sequences and equipment not elsewhere covered)	-	73 74 98 113 138 153 155 166 190 193 199 262 271 278 279 281 282 283 287 289 290 291 292 295 301 302 303 490 520 521	346				
		Level 1 Patient Care curriculum ends here.					

Table 5 (continued)

Skill or Knowledge Category (abbreviated)	Scale Value	Level 1: Aide	Level 2: Technician		Level 3: Technologist	
		Not Required	Task Codes	Curric. Ob.Nos.	Task Codes	Curric. Ob.Nos.
Factors:			Patient Care (IV)		Rad. Technology (III)	
Leadership Skills	1.0		33	37		
	4.5		296	40		
Taxonomic Skills	2.0		296	116	81 355 356 357 358 359 360 361 362 363 364 365 366 367 368 369 370 371 372 373 374 375 376 377 378 379 380 381 382 383 384 385 386 387 388 389 390 463 464 465 466 467 468 491 492 493 494 495 496 497 498 499 500 501 502 503 504 505 506 507 508 509 510 511 512 513 514 515 516 517 518 519 526	118
11731500 Respiratory system	1.5				362 364 374 378 379 380 494 497 498 526	182
	2.5		296	183		
11731700 Urinary system	1.5				363 387 388 389 390 463 495 501 502 526	189
	2.5		143	190		
	3.5		181	191		
11734600 Burns	3.5		156	217		

Table 5 (continued)

Skill or Knowledge Category (abbreviated	Scale Value	Level 1: Aide	Level 2: Technician		Level 3: Technologist	
		Not Required	Task Codes	Curric. Ob.Nos.	Task Codes	Curric. Ob.Nos.
Factors:			Patient Care (IV)		Rad. Technology (III)	
11734800 Shock and trauma	1.5				369 463 464	218
	2.5				353 355 356 357 358 359 360 361 362 363 364 365 366 367 368 374 375 376 377 378 379 380 381 382 383 384 385 386 387 388 389 390 465 466 467 468 491 492 493 494 495 496 497 498 499 500 501 502 503 504 505 506 507 508 509 510 511 512 513 514 515 516 517 518 519 526	219
	3.5		296	220		
11735100 Operative procedures	1.5		65	222	371 379 464	223
11735400 Introductory procedures	1.5		18 65 182	225	353 377 378 380 382 383 385 386 387 388 389 390 463 497 499 500 501 502 503 504 505 506 507 508 509 510 511 512 513 514 515 516 517 518 519 526	227
	2.5		143 181	228	465	229
	3.5		133 296 299	230		
11735600 Suture	1.5		33	232		

Table 5 (continued) Page 21 of 30

Skill or Knowledge Category (abbreviated)		Scale Value	Level 1: Aide	Level 2: Technician		Level 3: Technologist	
			Not Required	Task Codes	Curric. Ob.Nos.	Task Codes	Curric. Ob.Nos.
Factors:				Patient Care (IV)		Rad. Technology (III)	
11737000	First aid and care	2.5				353 355 356 357 358 359 360 361 362 363 364 365 366 367 368 374 466 468	235
		3.5				509 510 511 512 513 514 515 516 517 519	236
		7.0		296	237		
11737400	Sprains, strains, fractures; their healing	1.5				363 364 367 368 369 374 375 376 378 379 380 381 382 383 384 385 386 387 388 389 390 463 464 465 466 467 468 495 497 498 499 500 501 502 503 504 505 506 508 509 510 511 512 513 514 515 516 517 518 519 526	255
		2.5				353 355 356 357 358 359 360 361 362 365 366 370 377 491 492 493 494 496 507	256
		3.5		296	257		
11737600	Resuscitation	7.0		296	258		

Skill or Knowledge Category (abbreviated)	Scale Value	Level 1: Aide	Level 2: Technician		Level 3: Technologist	
		Not Required	Task Codes	Curric. Ob.Nos.	Task Codes	Curric. Ob.Nos.
Factors:			Patient Care (IV)		Rad. Technology (III)	
11737700 Wounds and their healing	1.5		522	259	353 355 356 357 358 359 360 361 362 363 364 365 366 367 368 369 374 375 376 377 378 379 380 381 382 383 384 385 386 387 388 389 390 463 464 465 466 467 468 491 492 493 494 495 496 497 498 499 500 501 502 504 505 506 507 508 509 510 511 512 513 514 515 516 517 518 519 526	260
	2.5		296	261	503	262
	3.5		156	263		
	5.5		33	264		
12300000 Pharmacology	1.5		133 198 298 299	295		
12331000 Drug toxicity, antidotal therapy	1.5				375 376 377 378 380 384 385 387 388 389	297
	2.5		133 198 298 299	298		
12332000 Drug idiosyncrasy, allergy pharmacogenetics	1.5				375 376 377 378 380 384 385 387 388 389	299
	2.5		33 133 198 298 299	300		
12334000 Drug tolerance, physical dependence	2.5		133 299	301		

Table 5 (continued)

Skill or Knowledge Category (abbreviated)	Scale Value	Level 1: Aide	Level 2: Technician		Level 3: Technologist	
		Not Required	Task Codes	Curric. Ob.Nos.	Task Codes	Curric. Ob.Nos.
Factors:			Patient Care (IV)		Rad. Technology (III)	
12335000 Drug synergism	2.5		133 198 298 299	302		
12336000 Chemical teratogenesis	2.5		133 299	303		
12341100 Antibacterial, antifungal chemotherapy	2.5		198 298	304		
	3.5		33 133 299	305		
12341300 Cancer and virus chemotherapy	2.5		198 298	306		
	3.5		133 299	307		
12342100 Drugs acting on cardiovascular system, smooth muscle	1.5		296	308		
	2.5		198 298	309		
	3.5		133 299	310		
12342200 Drugs acting on the blood	2.5		198 298	311		
	3.5		133 299	312		
12342300 Hormones, drugs acting on endocrin glands, accessory reproductive organs	2.5		198 298	313		
	3.5		133 299	314		
12342600 Drugs for allergy, cough, vomiting	2.5		198 298	315		
	3.5		133 299	316		
12342700 Drugs acting on gastrointestinal tract	2.5		198 298	317		
	3.5		133 299	318		
12342810 Drugs acting on autonomic nervous system	2.5		198 298	319		
	3.5		133 299	320		
12342820 Drugs acting on neuromuscular system	2.5		198 298	321		
	3.5		133 299	322		

Table 5 (continued)

Skill or Knowledge Category (abbreviated)		Scale Value	Level 1: Aide	Level 2: Technician		Level 3: Technologist	
			Not Required	Task Codes	Curric. Ob.Nos.	Task Codes	Curric. Ob.Nos.
Factors:				Patient Care (IV)		Rad. Technology (III)	
12342830	Drugs acting on central nervous system	1.5				353 355 356 357 358 359 360 361 362 363 364 365 366 374 375 376 377 378 379 380 386 388 389 390 465 467 491 492 493 494 495 496 499 500 501 502 503 504 505 506 507 508 509 510 511 512 513 514 515 516 517 518 519 526	323
		2.5		198 298	324		
		3.5		133 299	325		
12342900	Drugs acting on immunologic system	2.5		198 298	326		
		3.5		133 299	327		
1[illegible]222500	Interaction with radiation	1.5		280	329	280 353 355 356 357 358 359 360 361 362 363 364 365 366 367 368 369 370 371 372 373 374 375 376 377 378 379 380 381 382 383 384 385 386 387 388 389 390 463 464 465 466 467 468 491 492 493 494 495 496 497 498 499 500 501 502 503 504 505 506 507 508 509 510 511 512 513 514 515 516 517 518 519 526	331

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Table 5 (continued)

Skill or Knowledge Category (abbreviated)	Scale Value	Level 1: Aide	Level 2: Technician		Level 3: Technologist	
		Not Required	Task Codes	Curric. Ob.Nos.	Task Codes	Curric. Ob.Nos.
Factors:			Patient Care (IV)		Rad. Technology (III)	
65620000 Mechanics of writing English	1.5		33 156 182	342		
	2.5				81 353 355 356 357 358 359 360 361 362 363 364 365 366 367 368 370 371 372 373 374 375 376 377 378 379 380 381 382 383 384 385 386 387 388 389 390 463 464 465 466 467 468 491 492 493 494 495 496 497 498 499 500 501 502 503 504 505 506 507 508 509 510 511 512 513 514 515 516 517 518 519 526	344
Procedural Objective (task sequences and equipment not elsewhere covered)	-		18 33 65 133 143 156 181 182 185 198 243 280 296 298 299 308 522	347		
			Level 2 Patient Care curriculum ends here.			

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Table 5 (continued)

Skill or Knowledge Category (abbreviated)	Scale Value	Level 1: Aide	Level 2: Tecn.	Level 3: Technologist	
		Not Required	Not Required	Task Codes	Curric. Ob.Nos.
Factors:				Radiologic Technology (III)	
11731000 Normal structure and function	2.5			353 362 363 368 371 376 378 381 382 383 384 385 386 387 388 389 390 463 465 496 500 501 502 503 511 512 513 515 516 518 519	162
11731100 Regional anatomy	2.5			372 464	163
	3.5			355 356 357 358 359 360 361 362 363 364 365 366 367 368 370 371 373 375 376 377 378 379 380 381 382 383 384 385 386 387 388 389 390 463 465 466 467 468 491 492 493 494 495 496 497 498 499 500 501 502 503 504 505 506 507 508 509 510 511 512 513 514 515 516 517 518 519	165
	5.5			81 374 526	167
	7.0			353	168
11731300 Hematopoietic system	1.5			516	177
11731600 Digestive system	1.5			363 374 495 526	184
11731610 Mouth, pharynx, esophagus	1.5			364 374 375 381 494 499	185
11731620 Stomach, small intestine	1.5			381 382 499 501	186
11731630 Large intestine, rectum	1.5			383 500 501	187
11731640 Liver, biliary system, pancreas	1.5			371 384 385 386 387	188

Table 5 (continued) Page 27 of 30

Skill or Knowledge Category (abbreviated)	Scale Value	Level 1: Aide Not Required	Level 2: Tecn. Not Required	Level 3: Technologist Task Codes	Curric. Ob.Nos.
Factors:				Radiologic Technology (III)	
11731800 Musculoskeletal system	2.5			355 356 357 358 359 360 361 362 363 364 365 366 367 368 370 375 376 377 378 379 380 381 382 383 387 388 389 390 463 465 466 467 468 491 492 493 494 495 496 497 498 499 500 501 502 503 504 505 506 507 508 509 510 511 512 513 514 515 516 517 518 519	192
	3.5			374 526	193
	5.5			81 353	194
11731820 Bones and joints	2.5			363 364 367 375 376 378 379 380 381 382 383 387 388 389 390 463 465 466 467 468 495 497 498 499 500 501 502 503 504 505 506 508 509 510 511 512 513 514 515 516 517 518 519	195
	3.5			355 356 357 358 359 360 361 362 365 366 370 374 377 491 492 493 494 496 507 526	196
	7.0			353	197
11731910 Central nervous system	1.5			374 504 505 506 507 508 509 526	198
11731943 Eye and optic nerve	1.5			367	199
11732222 Male reproductive system	1.5			374 503 526	200
11732223 Female reproductive system	1.5			374 465 466 467 468 503 512 526	201

Table 5 (continued)

Skill or Knowledge Category (abbreviated)	Scale Value	Level 1: Aide	Level 2: Tecn.	Level 3: Technologist	
		Not Required	Not Required	Task Codes	Curric. Ob.Nos.
Factors:				Radiologic Technology (III)	
11733200 Neoplasms (cancerous growths)	1.5			353 362 363 364 366 368 374 375 376 378 379 380 381 382 383 384 385 386 387 388 389 390 463 465 494 495 498 499 500 501 502 504 505 506 508 509 511 512 514 515 516 518 526	202
11733400 Disorders of blood, blood-forming organs	1.5			516	203
11733510 Disorders of central nervous system	1.5			504 505 506 507 508 509	204
11733700 Disorders of digestive system	1.5			363 371 375 381 382 383 384 385 386 387 495 499 500 501	209
11733800 Disorders of respiratory system	1.5			353 355 356 357 358 359 360 361 363 364 365 366 367 368 369 375 376 377 381 382 383 384 385 386 387 388 389 390 463 464 465 466 467 468 491 492 493 495 496 497 499 500 501 502 503 504 505 506 507 508 509 510 511 512 513 514 515 516 517 518 519 526	210
	2.5			362 374 378 379 380 494 498	211
11733900 Disorders of uro-genital system	1.5			363 387 388 389 390 463 465 466 495 501 502 512	212

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Table 5 (continued)

Skill or Knowledge Category (abbreviated)	Scale Value	Level 1: Aide Not Required	Level 2: Tecn. Not Required	Level 3: Technologist Task Codes	Curric. Ob.Nos.
Factors:				Radiologic Technology (III)	
11734200 Disorders of musculoskeletal system	1.5			363 364 367 369 370 374 375 376 378 379 380 381 382 383 384 385 386 387 388 389 390 463 464 465 466 467 468 495 497 498 499 500 501 502 503 504 505 506 508 509 510 511 512 513 514 515 516 517 518 519 526	213
	2.5			353 355 356 357 358 359 360 361 362 365 366 368 377 491 492 493 494 496 507	214
11734300 Congenital abnormalities	1.5			380 496 497 499 500 501 502 503	215
11734400 Disorders, complications of pregnancy, birth	1.5			466 467 468 512	216
11735000 Surgery	1.5			372 373	221
11735300 Repair surgery	1.5			370	224
11735500 Endoscopy	1.5			379	231
11735800 Delivery methods for childbirth	1.5			466 468	233
11736000 Anesthesiology	1.5			370 371 372 373 463 498 511 513 514 516 518 519 526	234
33000000 Computer technology	1.5			526	336
41666700 Death and dying behavioral development	1.5			353 362 363 364 365 366 368 374 376 378 381 382 383 385 386 387 388 389 390 463 465 498 499 500 501 502 504 505 506 508 509 511 512 513 514 515 516 517 518 519 526	337

Table 5 (continued) Page 30 of 30

Skill or Knowledge Category (abbreviated)	Scale Value	Level 1: Aide	Level 2: Tecn.	Level 3: Technologist	
		Not Required	Not Required	Task Codes	Curric. Ob.Nos.
Factors:				Radiologic Technology (III)	
Symbolic Skills	1.5			355 356 357 358 359 360 361 362 363 364 365 366 367 368 370 371 372 373 374 375 376 377 378 379 380 381 382 383 384 385 386 387 388 389 390 463 464 465 466 467 468 491 492 493 494 495 496 497 498 499 500 501 502 503 504 505 506 507 508 509 510 511 512 513 514 515 516 517 518 519	115
51200000 Algebra	1.5			355 356 357 358 359 360 361 362 365 375 491 492 493 494 495 496 511 518	339
Procedural Objective (task sequences and equipment not elsewhere covered)	-			81 280 353 355 356 357 358 359 360 361 362 363 364 365 366 367 368 369 370 371 372 373 374 375 376 377 378 379 380 381 382 383 384 385 386 387 388 389 390 463 464 465 466 467 468 491 492 493 494 495 496 497 498 499 500 501 502 503 504 505 506 507 508 509 510 511 512 513 514 515 516 517 518 519 526	350
				Level 3 Radiologic Technologist curriculum ends here.	

Note: The assignment of tasks to factors and levels is presented in Appendix E. The scales are presented in Appendix C. The full knowledge category names appear in Appendix B and Table 2.

Table 6. CURRICULUM OUTLINE FOR ADMINISTRATIVE TASKS: TO BE INCORPORATED IN CURRICULUM FOR THE RADIOLOGIC TECHNOLOGIST IF DESIRED

Page 1 of 1

Skill or Knowledge Category (abbreviated)	Scale Value	Level 3: Technologist	
		Task Codes	Curric. Ob.Nos.
Factor:		Administration (Non-factor A)	
Human Interaction Skills	1.0	132 272 277	25
	3.0	76 128 129 131 165 186	31
	5.0	293	35
Leadership Skills	1.0	186 272 294	39
	4.5	131	41
Oral Use of a Relevant Language	2.0	76 128 129 131 132 165 272 277	46
	4.0	186 293 294	52
Reading Use of a Relevant Language	2.0	76 128 129 131 272 277 293 294	59
Written Use of a Relevant Language	2.0	165 293	69
Decision Making on Methods	1.5	294	76
	3.0	76 131 132 165 186 272 277 293	82
Decision Making on Quality	3.5	76 128 129 131 132 165 277 294	98
	5.5	293	100
	7.0	186 272	105
Financial Consequences of Error	1.0	76 129 131 132 165 272 277	134
Consequences of Error To Humans	1.0	76 128 129 131 165 186 272 277 294	143
Procedural Objective (task sequences and equipment not elsewhere covered)	-	76 128 129 131 132 165 186 272 277 293 294	351

Note: Curric. Ob.Nos. = curriculum objective numbers. These appear in numerical order in Chapter 8 of Volume 2. Abbreviated task names appear in Appendixes A and E. The assignment of tasks to factors and levels is presented in Appendix E. The scales are presented in Appendix C. The full knowledge category names appear in Appendix B and Table 2.

Table 7. CURRICULUM REQUIREMENTS FOR QUALITY ASSURANCE PROFESSIONAL (RADIATION PHYSICIST): FACTOR VI AT LEVEL 5

Page 1 of 2

Skill or Knowledge Category (abbreviated)	Scale Value	Task Codes
Object Manipulation Skills	3.5	558 559 560
Human Interaction Skills	3.0	528 542 546 547 557
	5.0	541 555 558 559 560
Oral Use of a Relevant Language	7.5	528 541 542 546 547 555 557 558 559 560
Reading Use of a Relevant Language	2.0	541 555
	5.0	558 559
	7.0	528 542 546 547 557 560
Written Use of a Relevant Language	2.0	541
	5.0	528 542 546 547 555 557 558 559 560
Decision Making on Methods	4.5	541 547 555 558 559 560
	7.0	528 542 546 557
Decision Making on Quality	7.0	528 541 542 546 547 555 557 558 559 560
Figural Skills	3.5	546 547 558 559 560
	5.0	541

Skill or Knowledge Category (abbreviated)	Scale Value	Task Codes
Symbolic Skills	1.5	558 559 560
	3.5	528 542 546 547 557
Taxonomic Skills	2.0	541 542 547 555 558 559 560
	5.5	528 546 557
Implicative Skills	1.0	541
	2.0	547 555 558 559 560
	4.0	528 542 546 557
Financial Consequences of Error	1.0	541 555 558 559 560
	4.0	528 542 546 547 557
Consequences of Error To Humans	2.0	560
	3.0	559
	5.5	541 555 558
	7.0	528 542 546 547 557
11731100 Regional anatomy	2.5	528 546 547 557 559
	5.5	541 558 560
12210000 Radiobiology	2.5	528 541 542
	3.5	546 547 557 558 560
	5.5	555 559
12220000 Radiology	2.5	555

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Note: Curriculum objectives have not been prepared above level 3. Abbreviated task names are presented in Appendixes A and E. Appendix B and Table 2 present the full names of the knowledge categories. Appendix C contains the scales.

Table 7 (continued)

Skill or Knowledge Category (abbreviated)	Scale Value	Task Codes
12221000 Radiotherapy	2.5	555
12222000 Radionuclide therapy	2.5	555
12223000 Diagnostic radiography	3.5	542
	5.5	528 547 555 557
	7.0	541 546 558 559 560
12224000 Radionuclide analysis	2.5	555
14111000 Solutions	2.5	542 557 559
15212100 Electric circuit theory	1.5	541 555 558 560
	2.5	528 542 546 547 557 559
15222100 Atomic structure	2.5	528 557 559
15222200 Atomic radiation processes	2.5	528 557 559
15222500 Interaction with radiation	1.5	541 542 558 560
	2.5	528 546 547 555 557 559
24110000 Electromagnetic field theory applications	1.5	528 557 558 559 560
24112000 Transducers and rotating machines	2.5	528 557 559
24132100 Electronic devices	1.5	541 542 558 560
	2.5	528 546 557 559
33000000 Computer technology	2.5	557 559
42300000 Systems of content presentation	2.5	558 559 560
42630000 Professional and graduate education	2.5	559
51200000 Algebra	1.5	528 546 547 558 559 560
52220000 Descriptive statistics	1.5	528 542 546 547 557 558 559 560
65260000 Photography,cinematography	1.5	541 558 560
	2.5	542 559
65620000 Mechanics of writing English	1.5	541 558 560
	2.5	542 559

Tasks at level 5, factor VI: 528, 541, 542, 546, 547, 555, 557, 558, 559 and 560.

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CHAPTER 9

CURRICULUM OBJECTIVES

This chapter presents 351 HSMS curriculum objectives for diagnostic radiology. The curriculum objectives cover quality assurance at job levels 1 and 2, patient care at job levels 1 and 2, radiologic technology at job level 3, and administration at job level 3.

The curriculum objectives in this chapter are arranged in numerical order by Curriculum Objective Number. There is no chapter pagination; instead, the pages within each curriculum objective are numbered. The Curriculum Objective Number ("No.") appears at the upper right of each Curriculum Objective Sheet after the factor number and under the reference to the number of pages for the objective. All curriculum objectives start on a new page, so they can be pulled out and arranged in any way that suits the reader.

A description of the format of the curriculum objectives appears in Chapter 6. Curriculum outline tables, which arrange the curriculum objectives in educational ladder sequences, are presented in Chapter 8 and discussed in Chapter 7.

The task descriptions whose language is reflected in the objectives and to which the curriculum objectives refer by Task Code or by name are in Volumes 2 and 3 of Research Report No. 7.[1]

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[1] *Op. cit.*

CURRICULUM OBJECTIVE SHEET Page 1 of 1

Type of Objective Skill Factor IV No. 1

Skill or Knowledge Category Object Manipulation Skills Scale Value 1.5

Occupation Patient Care Aide Level 1

Refers to Task Code No(s).: 98 153 166 199 262 283 292 301 302 303 520 521

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to achieve the degree of control and precision in the manipulation of objects with the fingers, hands, or limbs with the fineness of motion appropriate to achieving the standards set for manipulation of objects in the following activities:

1. Attaching and/or removing self-adhesive urine bag; attaching label (Task 98).
2. Using restraints to immobilize patient (Task 153).
3. Putting on sterile mask, gown and gloves for isolation or decontamination procedures; tying to fasten (Task 166).
4. Using sphygmomanometer to take blood pressure (Task 199).
5. Using controls to standardize ECG machine (Task 262).
6. Applying gauze pad to wound; cutting strips of adhesive; applying tape to gauze and skin (Task 283).
7. Taking small specimen of feces from container using rubber gloves and tongue depressor; placing into laboratory container (Tasks 292, 303).
8. Folding diaper; pinning into place on neonate or infant (Task 301).
9. Using wheelchair controls (Task 302).
10. Attaching ECG electrodes with clamp to amputee (Task 520).
11. Touching clot using sterile technique to judge whether it is hard; using marker to circle swelling or evidence of blood accumulation beneath skin (Task 521).

To accomplish this, the student must be able to state what standards of precision must be achieved for each activity, and must be able to exercise the degree of control and precision necessary to achieve the standards.

Cross Reference Footnotes: See The Following Curriculum Objectives:
Same scale value appears in: 2 3 4 5.
Higher scale value appears in: 6 7 8 9 10 11 12 13.

CURRICULUM OBJECTIVE SHEET Page 1 of 1

Type of Objective Skill Factor IV No. 2

Skill or Knowledge Category Object Manipulation Skills Scale Value 1.5

Occupation Patient Care Technician Level 2

Refers to Task Code No(s).: 198 298 308 522

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to achieve the degree of control and precision in the manipulation of objects with the fingers, hands, or limbs with the fineness of motion appropriate to achieving the standards set for manipulation of objects in the following activities:

1. Measuring out, pouring medication into a calibrated cup (Tasks 198, 298).
2. Using oscilloscope display controls to center ECG display (Task 308).
3. Rolling sterile gauze into pad and wrapping with tape to make pressure dressing (Task 522).

To accomplish this, the student must be able to state what standards of precision must be achieved for each activity, and must be able to exercise the degree of control and precision necessary to achieve the standards.

Cross Reference Footnotes: See The Following Curriculum Objectives:

Same scale value appears in: 1 3 4 5.

Higher scale value appears in: 6 7 8 9 10 11 12 13.

CURRICULUM OBJECTIVE SHEET Page 1 of 1

Type of Objective Skill Factor VI No. 3

Skill or Knowledge Category Object Manipulation Skills Scale Value 1.5

Occupation Quality Assurance Aide Level 1

Refers to Task Code No(s).: 71 79 145 167 192 260 267 273 304 319

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to achieve the degree of control and precision in the manipulation of objects with the fingers, hands, or limbs with the fineness of motion appropriate to achieving the standards set for manipulation of objects in the following activities:

1. Removing processed radiographs from dryer and trimming corners with scissors (Task 71).
2. Adding measured amounts of barium sulfate and water to pitcher; filling enema cans; attaching tubes and clamping (Task 79).
3. Disassembling syringes and catheters (Task 145).
4. Wringing out cotton or cloth and removing foreign objects from intensifying screens (Task 167).
5. Fanning paper and inserting in xeroradiograph processor (Task 192).
6. Using syringe to measure and/or prepare medication for injection (Tasks 260, 304).
7. Applying print coater to processed film using applicator (Tasks 267, 319).
8. Removing and/or replacing roller assembly of automatic x-ray film processor (Task 273).

To accomplish this, the student must be able to state what standards of precision must be achieved for each activity, and must be able to exercise the degree of control and precision necessary to achieve the standards.

Cross Reference Footnotes: See The Following Curriculum Objectives:

Same scale value appears in: 1 2 4 5.

Higher scale value appears in: 6 7 8 9 10 11 12 13.

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Type of Objective Skill Factor VI No. 4
Skill or Knowledge Category Object Manipulation Skills Scale Value 1.5
Occupation Quality Assurance Technician Level 2
Refers to Task Code No(s).: 178 524 525 527 529 530 531 532 534 535 536 537 538 539 545 548 550

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to achieve the degree of control and precision in the manipulation of objects with the fingers, hands, or limbs with the fineness of motion appropriate to achieving the standards set for manipulation of objects in the following activities:

1. Using spot film selector control (Task 178).

2. Removing, and/or rotating, cleaning various assemblies of computerized transverse axial tomography equipment, such as tape unit, scanning unit, headbox system; assembling headbag and inserting in unit (Task 524).

3. Loading tape in computer; threading onto take-up reel (Tasks 525, 527).

4. Loading paper and carbon ribbon in computer teletype unit (Task 527).

5. Operating collimator controls to adjust collimation (Tasks 178, 529, 530, 531, 534, 535, 536, 537, 538, 539, 545, 548, 550).

6. Mounting radiation detection device to collimator assembly; connecting radiation measuring instrument (Task 532).

7. Taking safety precautions, connecting equipment to measure voltage between x-ray tube electrode and ground or total voltage across tube; inserting mA meter across filament circuit, or connecting mAs meter or digital voltmeter in circuit as appropriate, or connecting mA meter directly to high voltage circuit (Task 535).

8. Tightening hardware on diagnostic x-ray equipment using hand tools (Task 536).

9. Mounting tomography attachment to radiographic examination table (Task 536).

To accomplish this, the student must be able to state what standards of precision must be achieved for each activity, and must be able to exercise the degree of control and precision necessary to achieve the standards.

Cross Reference Footnotes: See The Following Curriculum Objectives:
Same scale value appears in: 1 2 3 5.
Higher scale value appears in: 6 7 8 9 10 11 12 13.

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Type of Objective Skill Factor III No. 5

Skill or Knowledge Category Object Manipulation Skills Scale Value 1.5

Occupation Radiologic Technologist Level 3

Refers to Task Code No(s).: 355 356 357 358 359 360 361 362 363 364 366 367 368 370 371 372 373 374 378 379 381 382 383 384 385 386 387 389 463 464 465 466 467 468 512 515 517

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to achieve the degree of control and precision in the manipulation of objects with the fingers, hands, or limbs with the fineness of motion appropriate to achieving the standards set for manipulation of objects in the following activities:

1. Operating collimator controls to adjust collimation (most tasks listed above).
2. Using calipers to measure patient (most tasks listed above).
3. Adjusting, centering position of x-ray film in holder or cassette (most tasks listed above).
4. Operating controls to set focal-film distance, select exposure factors; positioning x-ray tube manually (most tasks listed above).
5. Placing, positioning non-infant patient's fingers, hands, or arms for radiography and using immobilization devices (Tasks 355, 356, 357, 517).
6. Placing, positioning non-infant patient's toes, feet, or legs for radiography and using immobilization devices (Tasks 358, 359, 360, 515)
7. Placing, positioning non-infant patient's torso and neck and using immobilization devices; using compression band if ordered (Tasks 361, 362, 363, 364, 374, 378, 379, 381, 382, 383, 384, 385, 386, 387, 389, 463, 465, 466, 467, 468, 512, 515, 517).
8. Placing, positioning patient's breasts and using pressure cone and/or other immobilization devices (Task 368).
9. Placing, positioning non-infant patient's head and using immobilization devices (Tasks 366, 367, 374).
10. Moving tabs holding small lead shot in place over breast masses to unpucker skin (Task 368).
11. Mounting tomography attachment to radiographic examination table (Tasks 374, 385).
12. Placing syringes containing contrast medium in appropriate heating device or pressure injector (Tasks 378, 515).

Type of Objective Skill **Factor** III **No.** 5

Skill or Knowledge Cagegory Object Manipulation Skills **Scale Value** 1.5

Content Continued

13. Handing sterile instruments to physician using sterile technique (Tasks 379, 382, 512).

14. Inserting catheter or rectal tip of enema into rectum; opening lumen of retention balloon catheter to drain; removing catheter or rectal tip of enema from rectum (Task 383).

15. Placing grid over pregnant patient's abdomen and taping into position (Task 467).

16. Placing and securing Colcher-Sussman pelvimeter in place between pregnant patient's thighs; adjusting scale as appropriate (Task 468).

17. Setting up, checking automatic pressure injection equipment; attaching tubing to syringes containing contrast medium (Tasks 512, 515).

18. Assisting with preparation or attachment of catheter(s), adaptors, puncture needles, syringes, IV bottles (Tasks 512, 515).

19. Loading automatic cassette changer with cassettes (Tasks 512, 515, 517).

20. Taping IV needle into place; immobilizing arm pad or arm board (Task 515).

To accomplish this, the student must be able to state what standards of precision must be achieved for each activity, and must be able to exercise the degree of control and precision necessary to achieve the standards.

Cross Reference Footnotes: See The Following Curriculum Objectives:
Same scale value appears in: 1 2 3 4.
Higher scale value appears in: 6 7 8 9 10 11 12 13.

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Type of Objective Skill Factor IV No. 6
Skill or Knowledge Category Object Manipulation Skills Scale Value 3.5
Occupation Patient Care Aide Level 1
Refers to Task Code No(s).: 287 290

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to achieve the degree of control and precision in the manipulation of objects with the fingers, hands, or limbs with the fineness of motion appropriate to achieving the standards set for manipulation of objects in the following activities:

1. Feeding a patient (Task 287).
2. In putting on fresh colostomy bag, cutting opening to fit stoma; attaching with adhesive sealer (Task 290).

To accomplish this, the student must be able to state what standards of precision must be achieved for each activity, and must be able to exercise the degree of control and precision necessary to achieve the standards.

Cross Reference Footnotes: See The Following Curriculum Objectives:
Lower scale value appears in: 1 2 3 4 5.
Same scale value appears in: 7 8 9 10.
Higher scale value appears in: 11 12 13.

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Type of Objective Skill Factor IV No. 7

Skill or Knowledge Category Object Manipulation Skills Scale Value 3.5

Occupation Patient Care Technician Level 2

Refers to Task Code No(s).: 156 182 185 243

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to achieve the degree of control and precision in the manipulation of objects with the fingers, hands, or limbs with the fineness of motion appropriate to achieving the standards set for manipulation of objects in the following activities:

1. Applying sterile gauze, pads, vaseline gauze to wound or burn using sterile techniques, forceps; applying tape; wrapping bandage; applying sling (Task 156).
2. Inserting suction catheter in tracheostomy; using catheter and controls to remove mucous from passageway; removing catheter (Task 182).
3. In checking oxygen equipment and administering oxygen, adjusting cylinder valve; connecting regulator; setting pressure and/or flow rate valve (Task 185).
4. Tying down hands, limbs, or body of patient needing restraining with gauze, foam pads, cloth tape, rolled sheets, special restraints; attaching restraints to bed, wheelchair, etc. (Task 243).

To accomplish this, the student must be able to state what standards of precision must be achieved for each activity, and must be able to exercise the degree of control and precision necessary to achieve the standards.

Cross Reference Footnotes: See The Following Curriculum Objectives:

Lower scale value appears in: 1 2 3 4 5.
Same scale value appears in: 6 8 9 10 and levels 4 and 5.
Higher scale value appears in: 11 12 13.

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Type of Objective Skill Factor VI No. 8
Skill or Knowledge Category Object Manipulation Skills Scale Value 3.5
Occupation Quality Assurance Aide Level 1
Refers to Task Code No(s).: 72 95 180 269 275 284 551 552

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to achieve the degree of control and precision in the manipulation of objects with the fingers, hands, or limbs with the fineness of motion appropriate to achieving the standards set for manipulation of objects in the following activities:

1. Handling x-ray film or Polaroid film appropriately at edges to avoid smudging, buckling, or leaving marks while loading x-ray film cassette (Task 72), loading Polaroid cassette (Task 269), making subtraction prints (Task 275), inserting dosimetric films into insert container for film badges (Task 551), or placing dosimetric or TLD samples and exposed film and TLD in container for processing (Task 552).

2. Cutting leading edge of roll film without cutting perforations to load roll film (Task 72).

3. Filling eyedropper with water, eyedropper with urine; dropping exact number of drops of water and urine into test tube containing clinitest tablet (Task 95).

4. Filling test tube with blood from syringe by removing needle; expelling appropriate amount of blood into test tube slowly to avoid hemolyzing blood (Task 180).

5. Adjusting cylinder valve as appropriate in check of oxygen equipment (Task 284).

To accomplish this, the student must be able to state what standards of precision must be achieved for each activity, and must be able to exercise the degree of control and precision necessary to achieve the standards.

Cross Reference Footnotes: See The Following Curriculum Objectives:
Lower scale value appears in: 1 2 3 4 5.
Same scale value appears in: 6 7 9 10 and levels 4 and 5.
Higher scale value appears in: 11 12 13.

Table 5 (continued)

Skill or Knowledge Category (abbreviated)	Scale Value	Level 1: Aide		Level 2: Technician		Level 3: Technologist	
		Task Codes	Curric. Ob.Nos.	Task Codes	Curric. Ob.Nos.	Task Codes	Curric. Ob.Nos.
Factors:		Patient Care (IV)				Rad. Technology(III)	
Decision Making on Methods	1.5	98 199 262 279 281 282 283 287 295 490 520 521	71	143 181 298	72	353 370 371 372 373	75
	3.0	155 166 190 193 278 303	77	18 33 65 133 156 182 185 243 299 308	78	81 374 375 376 377 378 379 380 381 382 383 384 385 386 387 388 389 390 463 464 465 466 467 468 497 498 499 500 501 502 503 504 505 506 507 508 509 510 511 512 513 514 515 516 517 518 519 526	81
	4.5	73 113 138 290	83			355 356 357 358 359 360 361 362 363 364 365 366 367 368 369 491 492 493 494 495 496	85
	7.0			296	86		

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Type of Objective Skill Factor VI No. 9
Skill or Knowledge Category Object Manipulation Skills Scale Value 3.5
Occupation Quality Assurance Technician Level 2
Refers to Task Code No(s).: 173 175 187 276 543 544 553

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to achieve the degree of control and precision in the manipulation of objects with the fingers, hands, or limbs with the fineness of motion appropriate to achieving the standards set for manipulation of objects in the following activities:

1. Spinning top in spinning top test of x-ray machine timers (Task 173).

2. Preparing and placing lead sheeting to mask cassette in penetrometer test of kVp calibration (Task 175).

3. Placing wire mesh screen flat on tube-side surface of cassette for test of film-screen contact (Task 187).

4. Making minor repairs of automatic film processor by unjamming x-ray film in processor, lifting out roller assembly, pulling out jammed film; cleaning, handling rollers with care; using hand tools to correct alignments, tighten bolts, screws, sprockets or make other adjustments (Task 276).

5. Handling x-ray film appropriately at edges to avoid smudging, buckling, leaving marks or causing static discharges while checking operation of film processor (Tasks 276,543), while determining exposure characteristics of x-ray and/or dosimetric films (Task 544), or disassembling dosimeters before processing (Task 553).

To accomplish this, the student must be able to state what standards of precision must be achieved for each activity, and must be able to exercise the degree of control and precision necessary to achieve the standards.

Cross Reference Footnotes: See The Following Curriculum Objectives:
Lower scale value appears in: 1 2 3 4 5.
Same scale value appears in: 6 7 8 10 and levels 4 and 5.
Higher scale value appears in: 11 12 13.

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Type of Objective Skill **Factor** III **No.** 10
Skill or Knowledge Category Object Manipulation Skills **Scale Value** 3.5
Occupation Radiologic Technologist **Level** 3
Refers to Task Code No(s).: 365 375 376 377 380 388 390 491 492 493 494 495 496 497 498 499 500 501 502 503 504 505 506 507 508 509 510 511 513 514 516 518 519 526
Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to achieve the degree of control and precision in the manipulation of objects with the fingers, hands, or limbs with the fineness of motion appropriate to achieving the standards set for manipulation of objects in the following activities:

1. Placing,positioning infant or pediatric patient's fingers, hands or arms for radiography and using immobilization devices (Tasks 376, 493, 510).
2. Placing,positioning infant or pediatric patient's toes, feet or legs for radiography and using immobilization devices (Tasks 376, 377, 496, 510).
3. Placing, positioning infant, pediatric or adult patient's torso and neck,and using immobilization devices to obtain exact angulation and centering and/or maintain sterile field (Tasks 376, 380, 388, 390, 492, 494, 495, 498, 499, 500, 501, 502, 503, 506, 507, 508, 509, 510, 511, 512, 513, 514, 516, 518, 519, 526).
4. Placing, positioning infant, pediatric or adult patient's head,and using immobilization devices to obtain exact angulation and centering (Tasks 365, 375, 380, 491, 497, 504, 505, 506, 526).

To accomplish this, the student must be able to state what standards of precision must be achieved for each activity, and must be able to exercise the degree of control and precision necessary to achieve the standards.

Cross Reference Footnotes: See The Following Curriculum Objectives:
Lower scale value appears in: 1 2 3 4 5.
Same scale value appears in: 6 7 8 9 and levels 4 and 5.
Higher scale value appears in: 11 12 13.

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Type of Objective Skill Factor IV No. 11

Skill or Knowledge Category Object Manipulation Skills Scale Value 5.0

Occupation Patient Care Technician Level 2

Refers to Task Code No(s).: 18 33 65 133 296 299

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to achieve the degree of control and precision in the manipulation of objects with the fingers, hands, or limbs with the fineness of motion appropriate to achieving the standards set for manipulation of objects in the following activities:

1. Using sterile needle with vacutainer or syringe to insert needle into vein and draw proper amount of blood from non-pediatric patient's vein (Task 18).
2. Using clamp to hold up suture stitches to be cut,and cutting sutures with appropriate scissors (Task 33).
3. Using sterile tweezers to pick up tissue fragments visible on sterile slide on which specimen material has been placed,or "teasing" tissue from brushes used in brush biopsy;and placing into tissue containers (Task 65).
4. Injecting medication subcutaneously or intramuscularly at the site selected by ejecting air, inserting needle, pulling back on syringe, checking that no blood appears, and injecting medication (Tasks 133, 299).
5. Inserting plastic oral airway or endotracheal tube as first aid procedure (Task 296).

To accomplish this, the student must be able to state what standards of precision must be achieved for each activity, and must be able to exercise the degree of control and precision necessary to achieve the standards.

Cross Reference Footnotes: See The Following Curriculum Objectives:

Lower scale value appears in: 1 2 3 4 5 6 7 8 9 10.

Same scale value appears in: 12 and level 4 of patient care.

Higher scale value appears in: 13.

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Type of Objective Skill Factor VI No. 12
Skill or Knowledge Category Object Manipulation Skills Scale Value 5.0
Occupation Quality Assurance Aide Level 1
Refers to Task Code No(s).: 69

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to achieve the degree of control and precision in the manipulation of objects with the fingers, hands, or limbs with the fineness of motion appropriate to achieving the standards set for manipulation of objects in the following activities:

1. For automatic processing of roll film, inserting and threading leader film in and around roller assemblies; splicing leader film to exposed film end-to-end with tape while handling film so as not to mark or cause artifacts (Task 69).

To accomplish this, the student must be able to state what standards of precision must be achieved for each activity, and must be able to exercise the degree of control and precision necessary to achieve the standards.

Cross Reference Footnotes: See The Following Curriculum Objectives:
Lower scale value appears in: 1 2 3 4 5 6 7 8 9 10.
Same scale value appears in: 11 and level 4 of patient care.
Higher scale value appears in: 13.

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Type of Objective Skill Factor IV No. 13
Skill or Knowledge Category Object Manipulation Skills Scale Value 7.5
Occupation Patient Care Technician Level 2
Refers to Task Code No(s).: 143 181

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to achieve the degree of control and precision in the manipulation of objects with the fingers, hands, or limbs with the fineness of motion appropriate to achieving the standards set for manipulation of objects in the following activities:

1. Inserting balloon catheter into male or female urethra, maintaining sterile field (Tasks 143, 181).

To accomplish this, the student must be able to state what standards of precision must be achieved for each activity, and must be able to exercise the degree of control and precision necessary to achieve the standards.

Cross Reference Footnotes: See The Following Curriculum Objectives:
Lower scale value appears in: 1 2 3 4 5 6 7 8 9 10 11 12.

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Type of Objective Skill Factor IV No. 14

Skill or Knowledge Category Guiding or Steering Skills Scale Value 1.5

Occupation Patient Care Aide Level 1

Refers to Task Code No(s).: 287 302

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to coordinate his or her perception of external stimuli which inform him or her of his or her position in order to control an object being moved over a predetermined pathway in the following activities so as to achieve the degree of precision necessary to accomplish the objective within an acceptable margin of error:

1. Wheeling cart to kitchen,and returning to patient with food tray on cart (Task 287).
2. Wheeling patient in wheelchair into position to make telephone call (Task 302).

To accomplish this, the student must be able to state what external stimuli must be attended to, what coordination is required, and what margin of error is allowable in the movement of the object to achieve the standards.

Cross Reference Footnotes: See The Following Curriculum Objectives:

Same scale value appears in: 15 16 17.

Higher scale value appears in: 18 19.

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Type of Objective Skill Factor VI No. 15
Skill or Knowledge Category Guiding or Steering Skills Scale Value 1.5
Occupation Quality Assurance Aide Level 1
Refers to Task Code No(s).: 136 288

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to coordinate his or her perception of external stimuli which inform him or her of his or her position in order to control an object being moved over a predetermined pathway in the following activity so as to achieve the degree of precision necessary to accomplish the objective within an acceptable margin of error:

1. Wheeling cart carrying food or supplies to appropriate location (Tasks 136, 288).

To accomplish this, the student must be able to state what external stimuli must be attended to, what coordination is required, and what margin of error is allowable in the movement of the object to achieve the standards.

Cross Reference Footnotes: See The Following Curriculum Objectives:
Same scale value appears in: 14 16 17.
Higher scale value appears in: 18 19.

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Type of Objective Skill Factor VI No. 16
Skill or Knowledge Category Guiding or Steering Skills Scale Value 1.5
Occupation Quality Assurance Technician Level 2
Refers to Task Code No(s).: 524

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to coordinate his or her perception of external stimuli which inform him or her of his or her position in order to control an object being moved over a predetermined pathway in the following activity so as to achieve the degree of precision necessary to accomplish the objective within an acceptable margin of error:

1. Wheeling or moving examination table or couch during maintenance cleaning of computerized transverse axial tomography equipment (Task 524).

To accomplish this, the student must be able to state what external stimuli must be attended to, what coordination is required, and what margin of error is allowable in the movement of the object to achieve the standards.

Cross Reference Footnotes: See The Following Curriculum Objectives:
Same scale value appears in: 14 15 17.
Higher scale value appears in: 18 19.

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Type of Objective Skill Factor III No. 17

Skill or Knowledge Category Guiding or Steering Skills Scale Value 1.5

Occupation Radiologic Technologist Level 3

Refers to Task Code No(s).: 355 356 357 358 359 360 361 362 363 364 365 366 367 368 369 370 371 372 373 374 375 376 377 378 379 380 381 382 383 384 385 386 387 388 389 390 463 465 466 467 468 491 492 493 494 495 496 499 500 (*continued below)

Is there Cross Reference? ...Yes( ) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to coordinate his or her perception of external stimuli which inform him or her of his or her position in order to control an object being moved over a predetermined pathway in the following activities so as to achieve the degree of precision necessary to accomplish the objective within an acceptable margin of error:

1. Wheeling patient on stretcher or in wheelchair and positioning next to radiographic examination table (all tasks listed above except Tasks 369, 370, 371, 372, 373 and 463).

2. Transporting mobile x-ray equipment from department to bedside or operating room positions,and/or wheeling PEG chair or serial cassette changer into position for radiographic examination (Tasks 369, 370, 372,373, 463, 504, 505, 509, 510, 511, 512, 513, 514, 515, 516, 517, 518, 519).

To accomplish this, the student must be able to state what external stimuli must be attended to, what coordination is required, and what margin of error is allowable in the movement of the object to achieve the standards.

Cross Reference Footnotes: See The Following Curriculum Objectives:

Same scale value appears in: 14 15 16.

Higher scale value appears in: 18 19.

* 501 502 503 504 505 506 507 508 509 510 511 512 513 514 515 516 517 518 519 526.

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Type of Objective Skill Factor IV No. 18
Skill or Knowledge Category Guiding or Steering Skills Scale Value 3.0
Occupation Patient Care Aide Level 1
Refers to Task Code No(s).: 190

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to coordinate his or her perception of external stimuli which inform him or her of his or her position in order to control an object being moved over a predetermined pathway in the following activity so as to achieve the degree of precision necessary to accomplish the objective within an acceptable margin of error:

1. Wheeling patient on stretcher or in wheelchair to designated location anywhere in hospital to which patient is to be transported (Task 190).

To accomplish this, the student must be able to state what external stimuli must be attended to, what coordination is required, and what margin of error is allowable in the movement of the object to achieve the standards.

Cross Reference Footnotes: See The Following Curriculum Objectives:
Lower scale value appears in: 14 15 16 17.
Same scale value appears in: 19.

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Type of Objective Skill Factor IV No. 19

Skill or Knowledge Category Guiding or Steering Skills Scale Value 3.0

Occupation Patient Care Technician Level 2

Refers to Task Code No(s).: 182 185

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to coordinate his or her perception of external stimuli which inform him or her of his or her position in order to control an object being moved over a predetermined pathway in the following activities so as to achieve the degree of precision necessary to accomplish the objective within an acceptable margin of error:

1. Wheeling patient in stretcher or wheelchair into position to receive suction, gastric lavage or oxygen, taking care that patient is not jostled (Tasks 182, 185).

To accomplish this, the student must be able to state what external stimuli must be attended to, what coordination is required, and what margin of error is allowable in the movement of the object to achieve the standards.

Cross Reference Footnotes: See The Following Curriculum Objectives:
Lower scale value appears in: 14 15 16 17.
Same scale value appears in: 18 and level 4 of patient care.

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Type of Objective Skill Factor IV No. 20

Skill or Knowledge Category Human Interaction Skills Scale Value 1.0

Occupation Patient Care Aide Level 1

Refers to Task Code No(s).: 166 190 199 278 279 281 291

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to exercise sensitivity to others, and be sufficiently perceptive of the relevant characteristics or state of being of other people in the following activities to be able to pay attention to feedback in interaction, and adjust his or her behavior as appropriate to accomplish the purpose of the tasks in which the interactions occur. These activities include:

1. Asking, checking patient's identity against requisition sheet name; asking co-worker in uncontaminated area to hand in items to isolation unit area (Task 166).

2. Helping patient to or from bed, wheelchair or stretcher; asking co-worker to assist (Task 190).

3. Assisting patient to remove clothes; questioning patient or accompanying adult about whether there are any reasons that oral thermometer may not be used to take temperature; helping patient to relax; instructing patient in what to do as performer takes vital signs (Task 199); or so that performer can take oral temperature (Task 291).

4. Telephoning wards or floors and finding out why patients have not arrived in department for scheduled examination or procedure; speaking to ward or floor supervisor and requesting that recurrences of non-arrival of patients be avoided in the future (Task 278).

5. Informing appropriate staff when it is time to prepare patients for transportation to department for procedure; determining reasons if patient will not appear (Task 279).

6. Calling ward and explaining when wrong patient has been sent for procedure; obtaining missing information to be entered on patient's treatment and medication check lists by calling ward or asking patient as appropriate (Task 281).

To accomplish this, the student must be able to demonstrate sufficient awareness of what the relevant characteristics are of the "other" in the given situation, must be able to demonstrate sufficient perception of the feedback from the "other," and must be able to indicate what the proper adjustment must be in his or her behavior to accomplish the activities which engendered the interaction, and do this at the quality standard set.

Cross Reference Footnotes: See The Following Curriculum Objectives:
Same scale value appears in: 21 22 23 24 25.
Higher scale value appears in: 26 27 28 29 30 31 32 33 34 35 36.

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Type of Objective Skill Factor IV No. 21
Skill or Knowledge Category Human Interaction Skills Scale Value 1.0
Occupation Patient Care Technician Level 2
Refers to Task Code No(s).: 65

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to exercise sensitivity to others, and be sufficiently perceptive of the relevant characteristics or state of being of other people in the following activities to be able to pay attention to feedback in interaction, and adjust his or her behavior as appropriate to accomplish the purpose of the tasks in which the interactions occur. These activities include:

1. Discussing timing and what is involved in procedure to obtain extravascular body fluids, washings, cell, and/or tissue biopsies with the physician who will obtain specimen(s) in order to be ready to prepare them for transportation to laboratory (Task 65).

To accomplish this, the student must be able to demonstrate sufficient awareness of what the relevant characteristics are of the "other" in the given situation, must be able to demonstrate sufficient perception of the feedback from the "other," and must be able to indicate what the proper adjustment must be in his or her behavior to accomplish the activities which engendered the interaction,and do this at the quality standard set.

Cross Reference Footnotes: See The Following Curriculum Objectives:
Same scale value appears in: 20 22 23 24 25.
Higher scale value appears in: 26 27 28 29 30 31 32 33 34 35 36.

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Type of Objective Skill Factor VI No. 22

Skill or Knowledge Category Human Interaction Skills Scale Value 1.0

Occupation Quality Assurance Aide Level 1

Refers to Task Code No(s).: 8 69 70 71 72 79 80 95 134 135 136 137 163 164 180 184 227 260 267 269 274 275 284 285 286 288 297 300 304 354 552

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to exercise sensitivity to others, and be sufficiently perceptive of the relevant characteristics or state of being of other people in the following activities to be able to pay attention to feedback in interaction, and adjust his or her behavior as appropriate to accomplish the purpose of the tasks in which the interactions occur. These activities include:

1. Reporting problems with x-ray or other equipment to appropriate staff member or service organization (Tasks 8, 284).
2. Reporting missing items to staff member or distributor (Tasks 136, 184, 284, 285, 304).
3. Informing appropriate staff member that processed radiographs are on view boxes, or subtraction prints are ready to be evaluated, or presenting personally (Tasks 69, 71, 275).
4. Informing co-worker when equipment, contrast medium, procedure tray, or labels are ready for use (Tasks 70, 79, 80, 164).
5. Obtaining materials, supplies, or records from co-worker (Tasks 267, 274, 286, 354).
6. Questioning co-worker or appropriate staff member to obtain information needed for records (Task 134).
7. Bringing or giving x-ray film loaded in proper holder to co-worker (Tasks 72, 269), specimen to co-worker in laboratory (Task 137), record form to co-worker or physician for check or signature (Tasks 163, 288), prepared hypodermic syringe for injection to staff member or physician and reporting amount of regulated drug left over (Task 260), or computer control card to staff member (Task 297).
8. Requesting co-worker to obtain urine sample from patient (Task 95), wash equipment (Task 135), fill out lab slips (Task 137), check supplies and report missing items (Task 227), test computer control card (Task 297), deliver records (Task 300).
9. Standing by to receive blood sample as it is being obtained by staff member (Task 180).
10. Collecting and distributing dosimetric inserts or badges from staff members and providing replacements (Task 552).

CURRICULUM OBJECTIVE SHEET (continued) Page 2 of 2

Type of Objective Skill Factor VI No. 22

Skill or Knowledge Cagegory Human Interaction Skills Scale Value 1.0

Content Continued

To accomplish this, the student must be able to demonstrate sufficient awareness of what the relevant characteristics are of the "other" in the given situation, must be able to demonstrate sufficient perception of the feedback from the "other," and must be able to indicate what the proper adjustment must be in his or her behavior to accomplish the activities which engendered the interaction,and do this at the quality standard set.

Cross Reference Footnotes: See The Following Curriculum Objectives:

Same scale value appears in: 20 21 23 24 25.

Higher scale value appears in: 26 27 28 29 30 31 32 33 34 35 36.

CURRICULUM OBJECTIVE SHEET Page 1 of 1

Type of Objective Skill Factor VI No. 23
Skill or Knowledge Category Human Interaction Skills Scale Value 1.0
Occupation Quality Assurance Technician Level 2
Refers to Task Code No(s).: 78 173 178 187 276 523 524 525 527 534 536 538 553 554 556

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to exercise sensitivity to others, and be sufficiently perceptive of the relevant characteristics or state of being of other people in the following activities to be able to pay attention to feedback in interaction, and adjust his or her behavior as appropriate to accomplish the purpose of the tasks in which the interactions occur. These activities include:

1. Requesting that co-worker or staff member sign record form (Task 78).

2. Informing repair service staff of problem with equipment or supplies and relevant information, and/or informing appropriate staff that unit or materials are not to be used until repaired (Tasks 173, 178, 187, 276, 523, 525, 534, 536, 538, 556).

3. Informing co-worker of radiographs that were spoiled by being jammed in processor or in machine when it was opened (Task 276).

4. Informing co-worker or staff member of supplies that should be replenished or replaced (Task 524).

5. Explaining to physician or co-worker when information is missing on request to retrieve computerized transverse axial scans, such as improper authorization, incomplete identification (Task 527).

6. Reporting unusually high personnel dosimeter exposure readings to appropriate supervisor(s) (Task 553); and/or informing the individual(s) involved; notifying or arranging for personal interviews and reports (Task 554).

To accomplish this, the student must be able to demonstrate sufficient awareness of what the relevant characteristics are of the "other" in the given situation, must be able to demonstrate sufficient perception of the feedback from the "other," and must be able to indicate what the proper adjustment must be in his or her behavior to accomplish the activities which engendered the interaction, and do this at the quality standard set.

Cross Reference Footnotes: See The Following Curriculum Objectives:
Same scale value appears in: 20 21 22 24 25.
Higher scale value appears in: 26 27 28 29 30 31 32 33 34 35 36.

CURRICULUM OBJECTIVE SHEET Page 1 of 1

Type of Objective Skill Factor III No. 24

Skill or Knowledge Category Human Interaction Skills Scale Value 1.0

Occupation Radiologic Technologist Level 3

Refers to Task Code No(s).: 372 373 464

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to exercise sensitivity to others, and be sufficiently perceptive of the relevant characteristics or state of being of other people in the following activities to be able to pay attention to feedback in interaction, and adjust his or her behavior as appropriate to accomplish the purpose of the tasks in which the interactions occur. These activities include:

1. Discussing whether explosive gases will be present in operating room, timing of procedure, specific precautions to take in dealing with patient, special equipment and logistics in connection with operating room radiography procedures (Tasks 272, 273).

2. Reporting to radiologist in charge possible contraindications to fluoroscopic procedure or difficulties such as missing information, improper authorization, equipment problems;and noting any special orders or change in procedure; discussing sequence and timing of procedure (Task 464).

3. Explaining need for radiation safety shielding and garments,such as leaded apron, curtain, gonadal shielding to patient and anyone to remain in room during radiation exposure (Tasks 372, 373, 464).

To accomplish this, the student must be able to demonstrate sufficient awareness of what the relevant characteristics are of the "other" in the given situation, must be able to demonstrate sufficient perception of the feedback from the "other," and must be able to indicate what the proper adjustment must be in his or her behavior to accomplish the activities which engendered the interaction,and do this at the quality standard set.

Cross Reference Footnotes: See The Following Curriculum Objectives:

Same scale value appears in: 20 21 22 23 25.

Higher scale value appears in: 26 27 28 29 30 31 32 33 34 35 36.

CURRICULUM OBJECTIVE SHEET Page 1 of 1

Type of Objective Skill **Factor** A **No.** 25
Skill or Knowledge Category Human Interaction Skills Scale Value 1.0
Occupation Administrative Technologist Level 3
Refers to Task Code No(s).: 132 272 277

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: **A graduate of the program at this educational level must be able to** exercise sensitivity to others, and be sufficiently perceptive of the relevant characteristics or state of being of other people in the following activities to be able to pay attention to feedback in interaction, and adjust his or her behavior as appropriate to accomplish the purpose of the tasks in which the interactions occur. These activities include:

1. Requesting repair or replacement of equipment, supplies, or services of another department by calling on telephone (Task 132).
2. Notifying appropriate staff when it is time to ready and transport patients for procedures (Task 272).
3. Requesting information on patient arrivals from appropriate staff members (Task 277).

To accomplish this, the student must be able to demonstrate sufficient awareness of what the relevant characteristics are of the "other" in the given situation, must be able to demonstrate sufficient perception of the feedback from the "other," and must be able to indicate what the proper adjustment must be in his or her behavior to accomplish the activities which engendered the interaction,and do this at the quality standard set.

Cross Reference Footnotes: See The Following Curriculum Objectives:
Same scale value appears in: 20 21 22 23 24.
Higher scale value appears in: 26 27 28 29 30 31 32 33 34 35 36.

CURRICULUM OBJECTIVE SHEET Page 1 of 2

Type of Objective Skill **Factor** IV **No.** 26
Skill or Knowledge Category Human Interaction Skills **Scale Value** 3.0
Occupation Patient Care Aide **Level** 1
Refers to Task Code No(s).: 74 98 113 155 193 262 271 282 283 287 289 292 295 301 302 303 520 521

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to exercise sensitivity to others, and be sufficiently perceptive of the relevant characteristics or state of being of other people in the following activities to be able to pay attention to feedback in interaction, and adjust his or her behavior as appropriate to accomplish the purpose of the tasks in which the interactions occur. These activities include:

1. Explaining to patient or family member what must be done or not done at home before patient comes for next appointment for radiography; checking that this is understood; explaining reasons, nature of examination, how to prepare (Task 74).
2. Encouraging pediatric patient to urinate (Task 98).
3. Giving comfort and moral support to patient; explaining about institution (Task 113).
4. Explaining to patient how to provide urine specimen,or to family member how to obtain specimen from child (Task 155).
5. Questioning patient to learn whether pre-examination procedures have been carried out (Task 193).
6. Explaining ECG procedures to patient or accompanying adult (Tasks 262, 520).
7. Without alarming patient with irregular ECG reading, making patient comfortable; noting whether patient is in distress; notifying appropriate physician (Task 271).
8. Escorting adult out-patients to and/or from dressing, waiting, or procedure rooms; explaining what clothing to remove; assisting if needed (Task 282).
9. Explaining to patient what will be done if dressing needs changing or reinforcing (Task 283),or puncture site requires manual pressure (Task 521).
10. Judging whether patient needs to be fed; feeding patient or assisting (Task 287).
11. Bottle feeding an infant or neonate (Task 289).
12. Encouraging pediatric patient to evacuate (Task 292).

CURRICULUM OBJECTIVE SHEET (continued) Page 2 of 2

Type of Objective Skill Factor IV No. 26
Skill or Knowledge Cagegory Human Interaction Skills Scale Value 3.0

Content Continued

13. Asking questions, raising issues, participating in discussions at meeting of nursing personnel in x-ray department (Task 295).

14. Diapering a baby (Task 301).

15. Determining from patient contents of message to be delivered by performer or information to be obtained; explaining why medical information cannot be relayed; placing call; relaying message; relaying return message (Task 302).

16. Explaining to patient how to note time and amount of urine passed, or feces evacuated (Task 303).

To accomplish this, the student must be able to demonstrate sufficient awareness of what the relevant characteristics are of the "other" in the given situation, must be able to demonstrate sufficient perception of the feedback from the "other," and must be able to indicate what the proper adjustment must be in his or her behavior to accomplish the activities which engendered the interaction,and do this at the quality standard set.

Cross Reference Footnotes: See The Following Curriculum Objectives:
Lower scale value appears in: 20 21 22 23 24 25.
Same scale value appears in: 27 28 29 30 31.
Higher scale value appears in: 32 33 34 35 36.

CURRICULUM OBJECTIVE SHEET Page 1 of 1

Type of Objective Skill Factor IV No. 27
Skill or Knowledge Category Human Interaction Skills Scale Value 3.0
Occupation Patient Care Technician Level 2
Refers to Task Code No(s).: 18 33 133 156 198 280 298 299 308 522

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to exercise sensitivity to others, and be sufficiently perceptive of the relevant characteristics or state of being of other people in the following activities to be able to pay attention to feedback in interaction, and adjust his or her behavior as appropriate to accomplish the purpose of the tasks in which the interactions occur. These activities include:

1. Explaining to patient what will be done to draw blood sample; taking sample (Task 18).
2. Explaining to patient and any accompanying family member what will be done in removal of sutures; explaining how to take any medication prescribed (Task 33).
3. Explaining to patient name and purpose of medication to be taken orally or injected and possible side effects; asking about allergies; injecting or administering medication (Tasks 133, 198, 298, 299).
4. Explaining what will be done in cleansing and dressing of wound, burn, or opening for catheter,or in applying pressure dressing (Tasks 156,522).
5. Discussing possible causes for unusually high radiation exposure reading of performer's own radiation detection dosimeter and possible transfer to other work (Task 280).
6. Explaining to patient what will be done to monitor patient's ECG (Task 308).

To accomplish this, the student must be able to demonstrate sufficient awareness of what the relevant characteristics are of the "other" in the given situation, must be able to demonstrate sufficient perception of the feedback from the "other," and must be able to indicate what the proper adjustment must be in his or her behavior to accomplish the activities which engendered the interaction,and do this at the quality standard set.

Cross Reference Footnotes: See The Following Curriculum Objectives:
Lower scale value appears in: 20 21 22 23 24 25.
Same scale value appears in: 26 28 29 30 31.
Higher scale value appears in: 32 33 34 35 36.

CURRICULUM OBJECTIVE SHEET Page 1 of 1

Type of Objective Skill Factor VI No. 28
Skill or Knowledge Category Human Interaction Skills Scale Value 3.0
Occupation Quality Assurance Aide Level 1
Refers to Task Code No(s).: 145 147 192

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to exercise sensitivity to others, and be sufficiently perceptive of the relevant characteristics or state of being of other people in the following activities to be able to pay attention to feedback in interaction, and adjust his or her behavior as appropriate to accomplish the purpose of the tasks in which the interactions occur. These activities include:

1. Asking co-worker's opinions about condition of equipment that appears defective or damaged (Task 145).

2. Noting, investigating request for change in technique chart for x-ray machine or expressed dissatisfaction with radiographs at current technical exposure settings; informing appropriate staff when changes are made (Task 147).

3. Discussing contrast and density control settings available in relation to expressed dissatisfaction with image quality of xeroradiography machine (Task 192).

To accomplish this, the student must be able to demonstrate sufficient awareness of what the relevant characteristics are of the "other" in the given situation, must be able to demonstrate sufficient perception of the feedback from the "other," and must be able to indicate what the proper adjustment must be in his or her behavior to accomplish the activities which engendered the interaction,and do this at the quality standard set.

Cross Reference Footnotes: See The Following Curriculum Objectives:
Lower scale value appears in: 20 21 22 23 24 25.
Same scale value appears in: 26 27 29 30 31.
Higher scale value appears in: 32 33 34 35 36.

CURRICULUM OBJECTIVE SHEET Page 1 of 1

Type of Objective Skill **Factor** VI **No.** 29
Skill or Knowledge Category Human Interaction Skills **Scale Value** 3.0
Occupation Quality Assurance Technician **Level** 2
Refers to Task Code No(s).: 175 280 529 530 531 532 533 535 537 539 540 543 544 545 548 549 550

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to exercise sensitivity to others, and be sufficiently perceptive of the relevant characteristics or state of being of other people in the following activities to be able to pay attention to feedback in interaction, and adjust his or her behavior as appropriate to accomplish the purpose of the tasks in which the interactions occur. These activities include:

1. Discussing with radiologist changes in kilovoltage settings to compensate for declining density in radiographs; obtaining instructions or opinions (Task 175).

2. Discussing possible causes for unusually high radiation exposure reading of performer's own radiation detection dosimeter and possible transfer to other work (Task 280).

3. Discussing results of test of x-ray equipment with supervisor and/or radiologist in charge,including effect of problem or deviations from acceptable standards on patient exposure, diagnostic reliability, legal requirements (Tasks 529, 530, 531, 532, 533, 535, 537, 539, 540, 548, 549).

4. Suggesting set-up and check procedures to staff using x-ray film processors,and discussing with appropriate staff member(s) (Task 543).

5. Discussing results of test to determine exposure characteristics of x-ray films with appropriate staff members (Task 544).

6. Discussing results of patient exposure rate monitoring and radiation protection survey with supervisor or radiologist,such as effect of deviations from acceptable standards on exposure levels, diagnostic reliability, safety requirements (Tasks 545, 550).

To accomplish this, the student must be able to demonstrate sufficient awareness of what the relevant characterisitcs are of the "other" in the given situation, must be able to demonstrate sufficient perception of the feedback from the "other," and must be able to indicate what the proper adjustment must be in his or her behavior to accomplish the activities which engendered the interaction,and do this at the quality standard set.

Cross Reference Footnotes: See The Following Curriculum Objectives:
Lower scale value appears in: 20 21 22 23 24 25.
Same scale value appears in: 27 28 30 31.
Higher scale value appears in: 32 33 34 35 36.

CURRICULUM OBJECTIVE SHEET Page 1 of 1

Type of Objective Skill **Factor** III **No.** 30
Skill or Knowledge Category Human Interaction Skills **Scale Value** 3.0
Occupation Radiologic Technologist **Level** 3
Refers to Task Code No(s).: 81 280 353 369 370 371

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to exercise sensitivity to others, and be sufficiently perceptive of the relevant characteristics or state of being of other people in the following activities to be able to pay attention to feedback in interaction, and adjust his or her behavior as appropriate to accomplish the purpose of the tasks in which the interactions occur. These activities include:

1. In reviewing the technical quality of "plain film" radiographs taken by co-worker, discussing whereabouts of missing views, suggesting alternative positioning, asking opinions of supervisor or radiologist about diagnostic quality and need for "retakes," suggesting additional views to obtain more complete information (Task 81).

2. Discussing possible causes for unusually high radiation exposure reading of performer's own radiation detection dosimeter and possible transfer to other work (Task 280).

3. Asking questions, raising issues, participating in discussions at meeting of diagnostic x-ray department technologists (Task 353).

4. Greeting patient to have radiographic examination; explaining what will be involved in the procedure; indicating what cooperation will be asked of patient; answering patient's non-medical questions honestly; attempting to reassure patient and develop confidence; treating patient with dignity and concern regardless of patient's behavior (in tasks with limited patient contact) (Tasks 369, 370, 371).

To accomplish this, the student must be able to demonstrate sufficient awareness of what the relevant characteristics are of the "other" in the given situation, must be able to demonstrate sufficient perception of the feedback from the "other," and must be able to indicate what the proper adjustment must be in his or her behavior to accomplish the activities which engendered the interaction, and do this at the quality standard set.

Cross Reference Footnotes: See The Following Curriculum Objectives:
Lower scale value appears in: 20 21 22 23 24 25.
Same scale value appears in: 26 27 28 29 31.
Higher scale value appears in: 32 33 34 35 36.

CURRICULUM OBJECTIVE SHEET Page 1 of 1

Type of Objective Skill **Factor** A **No.** 31

Skill or Knowledge Category Human Interaction Skills **Scale Value** 3.0

Occupation Administrative Technologist Level 3

Refers to Task Code No(s).: 76 128 129 131 165 186

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: **A graduate of the program at this educational level must be able to** exercise sensitivity to others, and be sufficiently perceptive of the relevant characteristics or state of being of other people in the following activities to be able to pay attention to feedback in interaction, and adjust his or her behavior as appropriate to accomplish the purpose of the tasks in which the interactions occur. These activities include:

1. Asking staff about items they wish to order or reorder, or receiving requests for items from staff and asking for needed information (Tasks 76, 129).

2. Asking co-workers whether anyone has used a narcotic drug without signing for it (Task 128).

3. Asking supervisor to request additional help to cover for absent staff members (Task 131).

4. Informing supervisor of excessive lateness, absenteeism or abuse of breaks on the part of staff members (Task 165).

5. In providing orientation to a new staff member, presenting information, answering questions, and eliciting responses to judge whether the individual comprehends what is presented (Task 186).

To accomplish this, the student must be able to demonstrate sufficient awareness of what the relevant characteristics are of the "other" in the given situation, must be able to demonstrate sufficient perception of the feedback from the "other," and must be able to indicate what the proper adjustment must be in his or her behavior to accomplish the activities which engendered the interaction,and do this at the quality standard set.

Cross Reference Footnotes: See The Following Curriculum Objectives:
Lower scale value appears in: 20 21 22 23 24 25.
Same scale value appears in: 26 27 28 29 30.
Higher scale value appears in: 32 33 34 35 36.

CURRICULUM OBJECTIVE SHEET
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Type of Objective Skill **Factor** IV **No.** 32
Skill or Knowledge Category Human Interaction Skills **Scale Value** 5.0
Occupation Patient Care Aide **Level** 1
Refers to Task Code No(s).: 73 138 153 290 490

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: **A graduate of the program at this educational level must be able to** exercise sensitivity to others, and be sufficiently perceptive of the relevant characteristics or state of being of other people in the following activities to be able to pay attention to feedback in interaction, and adjust his or her behavior as appropriate to accomplish the purpose of the tasks in which the interactions occur. These activities include:

1. Reassuring patient and/or accompanying adult about procedures; explaining what will happen; helping to calm or comfort patient and/or adult by being sympathetic and behaving in an interested and professional manner (Tasks 73, 153, 290, 490).

2. Noting, while interacting with patient, conditions, symptoms, or behavior which should be brought to physician's attention; noting whether, in conversation, patient mentions symptoms, or worries, or concerns related to health which should be told to physician to aid in caring for patient (Task 138).

To accomplish this, the student must be able to demonstrate sufficient awareness of what the relevant characteristics are of the "other" in the given situation, must be able to demonstrate sufficient perception of the feedback from the "other," and must be able to indicate what the proper adjustment must be in his or her behavior to accomplish the activities which engendered the interaction, and do this at the quality standard set.

Cross Reference Footnotes: See The Following Curriculum Objectives:
Lower scale value appears in: 20 21 22 23 24 25 26 27 28 29 30 31.
Same scale value appears in: 33 34 35.
Higher scale value appears in: 36.

CURRICULUM OBJECTIVE SHEET Page 1 of 1

Type of Objective Skill Factor IV No. 33
Skill or Knowledge Category Human Interaction Skills Scale Value 5.0
Occupation Patient Care Technician Level 2
Refers to Task Code No(s).: 143 181 182 185 243

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to exercise sensitivity to others, and be sufficiently perceptive of the relevant characterisitcs or state of being of other people in the following activities to be able to pay attention to feedback in interaction, and adjust his or her behavior as appropriate to accomplish the purpose of the tasks in which the interactions occur. These activities include:

1. In catheterization of male or female urethra, explaining what will be done and what patient will experience; reassuring, especially pediatric patient (Task 143, 181).

2. In clearing tracheostomy passage with suction machine, reassuring or comforting patient during process; determining whether passage has been cleared (Task 182).

3. In administering oxygen, observing patient to make sure patient is responding; reassuring patient; helping to relieve coughing; keeping patient relaxed (Task 185).

4. Trying to reassure and calm a patient who is being restrained (Task 243).

To accomplish this, the student must be able to demonstrate sufficient awareness of what the relevant characteristics are of the "other" in the given situation, must be able to demonstrate sufficient perception of the feedback from the "other," and must be able to indicate what the proper adjustment must be in his or her behavior to accomplish the activities which engendered the interaction,and do this at the quality standard set.

Cross Reference Footnotes: See The Following Curriculum Objectives:
Lower scale value appears in: 20 21 22 23 24 25 26 27 28 29 30 31.
Same scale value appears in: 32 34 35.
Higher scale value appears in: 36.

CURRICULUM OBJECTIVE SHEET Page 1 of 3

Type of Objective Skill **Factor** III **No.** 34
Skill or Knowledge Category Human Interaction Skills **Scale Value** 5.0
Occupation Radiologic Technologist **Level** 3
Refers to Task Code No(s).: 355 356 357 358 359 360 361 362 363 364 365 366 367
368 374 375 376 377 378 379 380 381 382 383 384 385 386 387 388 389 390 463 465
466 467 468 491 492 493 494 495 496 497 498 499 500 501 502 (*continued below)
Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to exercise sensitivity to others, and be sufficiently perceptive of the relevant characteristics or state of being of other people in the following activities to be able to pay attention to feedback in interaction, and adjust his or her behavior as appropriate to accomplish the purpose of the tasks in which the interactions occur. These activities include:

1. Explaining to patient and/or accompanying family member what will be involved in the procedure; indicating the types of positions the patient will be asked to assume and the cooperation that will be asked of the patient; answering patient's non-medical questions honestly; attempting to reassure patient and develop confidence (all tasks listed above).

2. Treating patient with dignity and concern regardless of patient's behavior, remaining aware that patient may be frightened and/or in pain; if patient is in gown, exposing patient's body only when necessary for examination procedure; in palpating for topographic landmarks avoiding embarassing patient (all tasks listed above).

3. Explaining reasons for use of protective shielding; questioning female patient of child bearing age regarding possible pregnancy (all tasks listed above as appropriate).

4. Questioning patient or staff member on what movement is possible for patient; asking about injury or pain (all tasks listed above).

5. Questioning patient or accompanying adult about patient's allergies, adverse reactions to shellfish; explaining what side effects may be felt from contrast medium, such as possible nausea, flushing, choking sensation (all tasks involving iodine-based contrast media).

6. Obtaining information missing from requisition, and/or discussing alternative patient positions, care of patient, performer's suggestions; raising and discussing possible contraindications to procedure; and/or discussing with radiologist sequence of procedure, timing, and signals to use in procedure (all tasks listed above as appropriate).

7. Teaching or rehearsing patient in the positions to take, breath control required, maneuvers, or how to behave with equipment that involves moving parts, such as tilt table, tomography, cassette changer, automatic injector (all tasks as appropriate).

Type of Objective Skill Factor III No. 34

Skill or Knowledge Cagegory Human Interaction Skills Scale Value 5.0

Content Continued

8. Observing patient for signs of pain, adverse reaction to positioning, use of contrast, signs of respiratory distress, fainting, loss of consciousness during procedure; checking that patient will not fall off table, that any IV or indwelling catheter is in place; comforting patient (all tasks as appropriate).

9. Explaining effects of instillation of contrast medium in promoting coughing reflex in bronchography; explaining why and when patient needs to exert effort to control coughing; helping patient practice shallow breathing or panting to suppress coughing; reassuring if patient has fears about having air passages entered by catheter or contrast material (Task 378).

10. Describing how nasoenteric tube will be inserted, how to assist in passing the tube; reassuring patient that nausea may be a normal occurrence; if patient experiences nausea, reassuring (Task 382).

11. Explaining possible cramping response to barium enema; instructing patient in how to indicate pain, how to hold enema; telling when evacuation will be possible, how evacuation will be done; questioning patient about ability to retain enema; assuring patient about privacy and the assistance that will be available to patient to avoid embarrassment if patient cannot retain enema; during procedure, encouraging patient to retain enema (Tasks 383, 500).

12. Explaining the time elapses during examination phases, the possible vomiting reaction to contrast medium, that this is normal, that performer will assist patient (Tasks 385, 387, 388, 389, 465).

13. If voiding or evacuation will be involved in examination, trying to relieve patient's embarrassment; assuring patient of privacy, closed door, exclusion of unauthorized staff, use of gown or drape (Tasks 390, 500).

14. Encouraging patient to inform urologist of any discomfort or pain in the back or loins when filling is underway in retrograde pyelography--as a guide for urologist to judge amount of contrast to use (Task 463).

15. Reinforcing physician's explanation of aftereffects of procedure and the symptoms patient is to report to clinician (Task 465).

16. Checking with pregnant patient on regularity of any contractions; having patient practice noting when fetus is quiet; making patient as comfortable as possible; if patient is in labor, helping patient to relax, breathe, or refrain from bearing down as appropriate to stage of labor (Tasks 466, 468).

CURRICULUM OBJECTIVE SHEET (continued) Page 3 of 3

Type of Objective Skill Factor III No. 34

Skill or Knowledge Cagegory Human Interaction Skills Scale Value 5.0

Content Continued

17. Attempting to keep pediatric patient calm or to relax a child who is unruly by developing a warm interaction with patient; holding patient; speaking in calm, gentle, voice; communicating as appropriate to patient's age, level of development or coherence; judging whether to use pacifier, toy, enlist help of staff or family member or to report that patient cannot be calmed (Tasks 375, 376, 377, 380, 388, 390, 491, 492, 493, 494, 495, 496, 497, 498, 499, 500, 501, 502, 053, 504, 505, 506, 507, 508, 509, 510, 511, 512, 513, 514, 515, 516, 517, 518, 526).

To accomplish this, the student must be able to demonstrate sufficient awareness of what the relevant characteristics are of the "other" in the given situation, must be able to demonstrate sufficient perception of the feedback from the "other," and must be able to indicate what the proper adjustment must be in his or her behavior to accomplish the activities which engendered the interaction,and do this at the quality standard set.

Cross Reference Footnotes: See The Following Curriculum Objectives:

Lower scale value appears in: 20 21 22 23 24 25 26 27 28 29 30 31.

Same scale value appears in: 32 33 35 and levels 4 and 5.

Higher scale value appears in: 36.

* 503 504 505 506 507 508 509 510 511 512 513 514 515 516 517 518 519 526.

CURRICULUM OBJECTIVE SHEET Page 1 of 1

Type of Objective Skill Factor A No. 35
Skill or Knowledge Category Human Interaction Skills Scale Value 5.0
Occupation Administrative Technologist Level 3
Refers to Task Code No(s).: 293

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to exercise sensitivity to others, and be sufficiently perceptive of the relevant characteristics or state of being of other people in the following activities to be able to pay attention to feedback in interaction, and adjust his or her behavior as appropriate to accomplish the purpose of the tasks in which the interactions occur. These activities include:

1. At meeting with supervisor,discussing performer's function or duties, or reviewing an evaluation of own work, or raising own problems; participating in discussion about what to do about problems, preferences about work, training, problems with own subordinates (if any) (Task 293).

To accomplish this, the student must be able to demonstrate sufficient awareness of what the relevant characteristics are of the "other" in the given situation, must be able to demonstrate sufficient perception of the feedback from the "other," and must be able to indicate what the proper adjustment must be in his or her behavior to accomplish the activities which engendered the interaction,and do this at the quality standard set.

Cross Reference Footnotes: See The Following Curriculum Objectives:
Lower scale value appears in: 20 21 22 23 24 25 26 27 28 29 30 31.
Same scale value appears in: 32 33 34 and level 4.
Higher scale value appears in: 36.

CURRICULUM OBJECTIVE SHEET Page 1 of 1

Type of Objective Skill **Factor** IV **No.** 36
Skill or Knowledge Category Human Interaction Skills **Scale Value** 7.0
Occupation Patient Care Technician **Level** 2
Refers to Task Code No(s).: 296

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to exercise sensitivity to others, and be sufficiently perceptive of the relevant characteristics or state of being of other people in the following activities to be able to pay attention to feedback in interaction, and adjust his or her behavior as appropriate to accomplish the purpose of the tasks in which the interactions occur. These activities include:

1. Determining from co-workers and observation of patient whether first aid or emergency care is required by asking questions, examining patient; directing co-workers to assist in emergency procedures; evaluating patient's response; reporting to physician when he or she arrives (Task 296).

To accomplish this, the student must be able to demonstrate sufficient awareness of what the relevant characteristics are of the "other" in the given situation, must be able to demonstrate sufficient perception of the feedback from the "other," and must be able to indicate what the proper adjustment must be in his or her behaivor to accomplish the activities which engendered the interaction, and do this at the quality standard set.

Cross Reference Footnotes: See The Following Curriculum Objectives:
Lower scale value appears in: 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35.
Same scale value appears in level 4 of patient care.

CURRICULUM OBJECTIVE SHEET Page 1 of 1

Type of Objective Skill **Factor** IV **No.** 37
Skill or Knowledge Category Leadership Skills **Scale Value** 1.0
Occupation Patient Care Technician **Level** 2
Refers to Task Code No(s).: 33

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to indicate the extent to which he or she is called on to provide leadership to subordinates (in line relation or de facto) so as to influence their work behavior, in order to accomplish work objectives such as the following:

1. Delegating all or part of procedure to remove patient's sutures; explaining what has to be done to staff who will carry out all or part of procedure (Task 33).

To accomplish this, the student must be able to state what power he or she has over the subordinates' conditions of employment (hiring, firing, promotions, raises, transfers, overtime, special privileges) in this situation; indicate how less leadership is needed the greater the power; and state what can be done to reduce or increase the need for leadership.

The student must be able to state what channels of communication exist for giving orders in this situation, for receiving or giving information, for the evaluation of and for exercising discipline over the subordinates; indicate how less leadership is needed the more precisely known and formalized these channels are; and state what can be done to reduce or increase the need for leadership.

The student must be able to state the degree to which the tasks of subordinates which are to be accomplished are clearly defined and understood by the subordinates in this situation; indicate how less leadership is needed the clearer the subordinates' own tasks are to them; and state what can be done to reduce or increase the need for leadership.

Cross Reference Footnotes: See The Following Curriculum Objectives:
Same scale value appears in: 38 39.
Higher scale value appears in: 40 41.

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Type of Objective Skill **Factor** VI **No.** 38

Skill or Knowledge Category Leadership Skills **Scale Value** 1.0

Occupation Quality Assurance Aide **Level** 1

Refers to Task Code No(s).: 354

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to indicate the extent to which he or she is called on to provide leadership to subordinates (in line relation or de facto) so as to influence their work behavior, in order to accomplish work objectives such as the following:

1. Deciding whether to send staff member to obtain documents; giving instructions or information on what is needed to person who will be sent (Task 354).

To accomplish this, the student must be able to state what power he or she has over the subordinates' conditions of employment (hiring, firing, promotions, raises, transfers, overtime, special privileges) in this situation; indicate how less leadership is needed the greater the power; and state what can be done to reduce or increase the need for leadership.

The student must be able to state what channels of communication exist for giving orders in this situation, for receiving or giving information, for the evaluation of and for exercising discipline over the subordinates; indicate how less leadership is needed the more precisely known and formalized these channels are; and state what can be done to reduce or increase the need for leadership.

The student must be able to state the degree to which the tasks of subordinates which are to be accomplished are clearly defined and understood by the subordinates in this situation; indicate how less leadership is needed the clearer the subordinates' own tasks are to them; and state what can be done to reduce or increase the need for leadership.

Cross Reference Footnotes: See The Following Curriculum Objectives:
Same scale value appears in: 37 39.
Higher scale value appears in: 40 41.

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Type of Objective Skill **Factor** A **No.** 39
Skill or Knowledge Category Leadership Skills **Scale Value** 1.0
Occupation Administrative Technologist **Level** 3
Refers to Task Code No(s).: 186 272 294

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to indicate the extent to which he or she is called on to provide leadership to subordinates (in line relation or *de facto*) so as to influence their work behavior, in order to accomplish work objectives such as the following:

1. Describing the procedures covered by the department that are relevant to new staff member(s); eliciting comments or questions to determine whether new staff comprehend (Task 186).
2. Notifying staff when it is time to have them notify appropriate personnel to prepare and transport patients to department (Task 272).
3. Selecting staff member to send to transport patient, obtain items,or assist in a procedure; informing staff member of what is needed or what is to be done (Task 294).

To accomplish this, the student must be able to state what power he or she has over the subordinates' conditions of employment (hiring, firing, promotions, raises, transfers, overtime, special privileges) in this situation; indicate how less leadership is needed the greater the power; and state what can be done to reduce or increase the need for leadership.

The student must be able to state what channels of communication exist for giving orders in this situation, for receiving or giving information, for the evaluation of and for exercising discipline over the subordinates; indicate how less leadership is needed the more precisely known and formalized these channels are; and state what can be done to reduce or increase the need for leadership.

The student must be able to state the degree to which the tasks of subordinates which are to be accomplished are clearly defined and understood by the subordinates in this situation; indicate how less leadership is needed the clearer the subordinates' own tasks are to them; and state what can be done to reduce or increase the need for leadership.

Cross Reference Footnotes: See The Following Curriculum Objectives:
Same scale value appears in: 37 38.
Higher scale value appears in: 40 41.

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Type of Objective Skill Factor IV No. 40
Skill or Knowledge Category Leadership Skills Scale Value 4.5
Occupation Patient Care Technician Level 2
Refers to Task Code No(s).: 296

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to indicate the extent to which he or she is called on to provide leadership to subordinates (in line relation or de facto) so as to influence their work behavior, in order to accomplish work objectives such as the following:

1. Deciding whether to ask staff member to help with an emergency first aid procedure or to bring or replace supplies; ordering what is needed and directing staff member (Task 296).

To accomplish this, the student must be able to state what power he or she has over the subordinates' conditions of employment (hiring, firing, promotions, raises, transfers, overtime, special privileges) in this situation; indicate how less leadership is needed the greater the power; and state what can be done to reduce or increase the need for leadership.

The student must be able to state what channels of communication exist for giving orders in this situation, for receiving or giving information, for the evaluation of and for exercising discipline over the subordinates; indicate how less leadership is needed the more precisely known and formalized these channels are; and state what can be done to reduce or increase the need for leadership.

The student must be able to state the degree to which the tasks of subordinates which are to be accomplished are clearly defined and understood by the subordinates in this situation; indicate how less leadership is needed the clearer the subordinates' own tasks are to them; and state what can be done to reduce or increase the need for leadership.

Cross Reference Footnotes: See The Following Curriculum Objectives:
Lower scale value appears in: 37 38 39.
Same scale value appears in: 41 and level 4.

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Type of Objective Skill **Factor** A **No.** 41

Skill or Knowledge Category Leadership Skills **Scale Value** 4.5

Occupation Administrative Technologist **Level** 3

Refers to Task Code No(s).: 131

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: **A graduate of the program at this educational level must be able to** indicate the extent to which he or she is called on to provide leadership to subordinates (in line relation or de facto) so as to influence their work behavior, in order to accomplish work objectives such as the following:

1. Obtaining staff preferences on work, vacation, days off, lunch and break time preferences; assigning and informing staff of scheduled assignments; making reassignments as needed (Task 131).

To accomplish this, the student must be able to state what power he or she has over the subordinates' conditions of employment (hiring, firing, promotions, raises, transfers, overtime, special privileges) in this situation; indicate how less leadership is needed the greater the power; and state what can be done to reduce or increase the need for leadership.

The student must be able to state what channels of communication exist for giving orders in this situation, for receiving or giving information, for the evaluation of and for exercising discipline over the subordinates; indicate how less leadership is needed the more precisely known and formalized these channels are; and state what can be done to reduce or increase the need for leadership.

The student must be able to state the degree to which the tasks of subordinates which are to be accomplished are clearly defined and understood by the subordinates in this situation; indicate how less leadership is needed the clearer the subordinates' own tasks are to them; and state what can be done to reduce or increase the need for leadership.

Cross Reference Footnotes: See The Following Curriculum Objectives:
Lower scale value appears in: 37 38 39.
Same scale value appears in: 40 and level 4.

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Type of Objective Skill Factor IV No. 42
Skill or Knowledge Category Oral Use of a Relevant Language Scale Value 2.0
Occupation Patient Care Aide Level 1
Refers to Task Code No(s).: 166 190 271 279 281 283 287 289 291 490

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to communicate orally (in an appropriate language) and comprehend what is said in that language with a sufficient degree of precision to accomplish the following activities by expressing or comprehending meaning with the degree of precision needed:

1. Asking co-worker for "clean" items to be handed into an area being used for decontamination or isolation procedures (Task 166).
2. Asking co-worker to assist in helping patient to or from wheelchair, stretcher, bed, or table (Task 190).
3. Asking appropriate staff person to check whether ECG reading is an artifact (Task 271).
4. Calling, asking appropriate nursing personnel to prepare patients for transportation to department for procedure at indicated time (Task 279).
5. Explaining that wrong patient has been sent; asking for proper patient (Task 281).
6. Asking to have the help of an RN to dress or redress a patient's wound; describing the situation and the condition of the dressing (Task 283).
7. Calling, placing order for a meal, formula, or special diet for a patient, and asking when it will be ready for pick up (Tasks 287, 289).
8. Asking patient to open and close mouth when taking oral temperature (Task 291).
9. Indicating to staff member that patient has been immobilized (Task 490).

To accomplish this, the student must be able to deal with the nuances of oral language with sufficient precision to use the words needed correctly in context, or grasp the meaning (or question a speaker about intended meaning), so that the activities involved can be accomplished satisfactorily.

Cross Reference Footnotes: See The Following Curriculum Objectives:
Same scale value appears in: 43 44 45 46.
Higher scale value appears in: 47 48 49 50 51 52 53.

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Type of Objective Skill Factor IV No. 43
Skill or Knowledge Category Oral Use of a Relevant Language Scale Value 2.0
Occupation Patient Care Technician Level 2
Refers to Task Code No(s).: 308

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to communicate orally (in an appropriate language) and comprehend what is said in that language with a sufficient degree of precision to accomplish the following activities by expressing or comprehending meaning with the degree of precision needed:

1. Asking what to look for in display of blood pressure monitoring; telling physician when any emergency signs or unusual ECG or pressure reading occurs (Task 308).

To accomplish this, the student must be able to deal with the nuances of oral language with sufficient precision to use the words needed correctly in context,or grasp the meaning (or question a speaker about intended meaning), so that the activities involved can be accomplished satisfactorily.

Cross Reference Footnotes: See The Following Curriculum Objectives:
Same scale value appears in: 42 44 45 46.
Higher scale value appears in: 47 48 49 50 51 52 53.

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Type of Objective Skill Factor VI No. 44

Skill or Knowledge Category Oral Use of a Relevant Language Scale Value 2.0

Occupation Quality Assurance Aide Level 1

Refers to Task Code No(s).: 8 69 70 71 79 80 95 134 135 136 137 145 163 164 184 227 260 273 275 284 285 286 288 297 300 304 354 552

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to communicate orally (in an appropriate language) and comprehend what is said in that language with a sufficient degree of precision to accomplish the following activities by expressing or comprehending meaning with the degree of precision needed:

1. Reporting equipment problems to appropriate staff member or repair service organization (Tasks 8, 70, 273, 284).

2. Informing staff member that processed x-ray films, materials, equipment, or supplies are ready (Tasks 69, 71, 79, 80, 164, 275).

3. Asking co-worker to do a portion of task or carry out a simple activity (Tasks 95, 135, 137, 552).

4. Questioning co-worker to obtain information needed for records (Tasks 134, 300).

5. Reporting missing equipment, records, or supplies, and/or asking for replacement of supplies (Tasks 136, 184, 227, 284, 285, 286, 297, 304, 354).

6. Asking opinion of co-worker about equipment or supplies (Task 145).

7. Asking for check of records, forms, or for signature; listening to any changes ordered; reporting leftover drugs (Tasks 163, 260, 288).

To accomplish this, the student must be able to deal with the nuances of oral language with sufficient precision to use the words needed correctly in context, or grasp the meaning (or question a speaker about intended meaning), so that the activities involved can be accomplished satisfactorily.

Cross Reference Footnotes: See The Following Curriculum Objectives:
Same scale value appears in: 42 43 45 46.
Higher scale value appears in: 47 48 49 50 51 52 53.

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Type of Objective Skill Factor VI No. 45

Skill or Knowledge Category Oral Use of a Relevant Language Scale Value 2.0

Occupation Quality Assurance Technician Level 2

Refers to Task Code No(s).: 78 173 178 187 276 523 524 525 534 536 538 553 554 556

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to communicate orally (in an appropriate language) and comprehend what is said in that language with a sufficient degree of precision to accomplish the following activities by expressing or comprehending meaning with the degree of precision needed:

1. Asking staff member to sign record or form (Task 78).
2. Reporting equipment problems to appropriate staff member or repair service organization (Tasks 173, 178, 187, 276, 523, 525, 534, 536, 538, 553, 556).
3. Informing staff member that materials, equipment, or supplies are ready for use or out-of-order (Tasks 524, 538).
4. Reporting missing equipment or supplies and/or asking for replacement or replenishment (Task 524).
5. Telling staff member's supervisor about unusual radiation dosage readings; arranging to have interview conducted to investigate reasons (Task 554).

To accomplish this, the student must be able to deal with the nuances of oral language with sufficient precision to use the words needed correctly in context or grasp the meaning (or question a speaker about intended meaning), so that the activities involved can be accomplished satisfactorily.

Cross Reference Footnotes: See The Following Curriculum Objectives:
Same scale value appears in: 42 43 44 46.
Higher scale value appears in: 47 48 49 50 51 52 53.

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Type of Objective Skill Factor A No. 46
Skill or Knowledge Category Oral Use of a Relevant Language Scale Value 2.0
Occupation Administrative Technologist Level 3
Refers to Task Code No(s).: 76 128 129 131 132 165 272 277

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to communicate orally (in an appropriate language) and comprehend what is said in that language with a sufficient degree of precision to accomplish the following activities by expressing or comprehending meaning with the degree of precision needed:

1. Asking about or receiving requests for materials to be ordered for department (Tasks 76, 129).

2. Asking co-worker to assist in performance of task; notifying staff when it is time to prepare a patient (Tasks 128, 272).

3. Reporting problem such as discrepancy in records to supervisor (Task 128).

4. Asking about staff preferences in work, vacation, lunch, or break times; telling staff the schedules assigned or rescheduled (Task 131).

5. Requesting repair or replacement of equipment or supplies, or asking for a service (Task 132).

6. Telling supervisor about an attendance or lateness problem of one of supervisor's subordinates (Task 165).

7. Asking about patient attendance (Task 277).

To accomplish this, the student must be able to deal with the nuances of oral language with sufficient precision to use the words needed correctly in context, or grasp the meaning (or question a speaker about intended meaning), so that the activities involved can be accomplished satisfactorily.

Cross Reference Footnotes: See The Following Curriculum Objectives:
Same scale value appears in: 42 43 44 45.
Higher scale value appears in: 47 48 49 50 51 52 53.

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Type of Objective Skill Factor IV No. 47
Skill or Knowledge Category Oral Use of a Relevant Language Scale Value 4.0
Occupation Patient Care Aide Level 1
Refers to Task Code No(s).: 73 74 98 113 138 153 155 193 199 262 278 282 290 292 295 302 303 520 521

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to communicate orally (in an appropriate language) and comprehend what is said in that language with a sufficient degree of precision to accomplish the following activities by expressing or comprehending meaning with the degree of precision needed:

1. Explaining what will happen during procedure to patient and/or accompanying adult using language understandable to the persons involved; explaining use of equipment or materials (Tasks 73, 98, 113, 153, 155, 262, 282, 290, 292, 303, 520, 521).

2. Explaining to patient or family member the procedures to be carried out at home before patient arrives for radiography; explaining what will happen; checking that patient or family member understands (Task 74).

3. In conversation with patient,noting whether patient mentions symptoms or worries related to health, or concerns which would indicate information helpful to physician in caring for patient; reporting to physician or appropriate staff member (Task 138).

4. Questioning patient to learn whether pre-examination procedures have been carried out (Task 193).

5. Questioning patient or accompanying adult to learn whether a condition exists precluding use of an oral thermometer with patient (Task 199).

6. Asking ward or floor supervisor about nonappearance of patients for examination; requesting that such instances be avoided; suggesting early notification of cancellations (Task 278).

7. Participating in meeting of nursing personnel assigned to x-ray department; raising questions about work, rules, regulations, new equipment, problems of patient care; participating in discussions (Task 295).

8. Making a telephone call on behalf of patient; relaying patient's message; taking return message (Task 302).

To accomplish this, the student must be able to deal with the nuances of oral language with sufficient precision to use the words needed correctly in context,or grasp the meaning (or question a speaker about intended meaning), so that the activities involved can be accomplished satisfactorily.

Cross Reference Footnotes: See The Following Curriculum Objectives:
Lower scale value appears in: 42 43 44 45 46.
Same scale value appears in: 48 49 50 51 52.
Higher scale value appears in: 53.

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Type of Objective Skill Factor IV No. 48
Skill or Knowledge Category Oral Use of a Relevant Language Scale Value 4.0
Occupation Patient Care Technician Level 2
Refers to Task Code No(s).: 18 33 65 133 143 156 181 182 185 198 243 280 296 298 299 522

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to communicate orally (in an appropriate language) and comprehend what is said in that language with a sufficient degree of precision to accomplish the following activities by expressing or comprehending meaning with the degree of precision needed:

1. Explaining to patient what will be done in drawing blood (Task 18), removing sutures (Task 33), using suction machine (Task 182), administering oxygen (Task 185), applying pressure dressing (Task 522).
2. Discussing timing of specimen-taking procedures with physician so that performer may receive body fluid, washings, and/or cell or tissue biopsies and prepare them for transportation to laboratory (Task 65).
3. Explaining name and purpose of medication and possible side effects; asking about patient's allergies; reporting contraindications to physician (Tasks 133, 198, 298, 299).
4. Explaining catheterization procedure to patient; reporting to physician reason for terminating if there is severe pain or blockage (Tasks 143, 181).
5. Telling physician if patient's wound or opening appears suspicious or if performer is unsure how to irrigate, medicate or dress (Task 156).
6. Explaining to staff member need for restraining patient, and asking why this was not done beforehand (Task 243).
7. Discussing possible reasons for unusually high radiation exposure reading on performer's radiation detection device; discussing possible transfer of work (Task 280).
8. Determining from co-workers information about a patient and the situation involved in a possible emergency; when physician arrives, reporting what has happened and what emergency care has been administered (Task 296).

To accomplish this, the student must be able to deal with the nuances of oral language with sufficent precision to use the words needed correctly in context, or grasp the meaning (or question a speaker about intended meaning), so that the activities involved can be accomplished satisfactorily.

Cross Reference Footnotes: See the Following Curriculum Objectives:
Lower scale value appears in: 42 43 44 45 46.
Same scale value appears in: 47 49 50 51 52 and level 4 of patient care.
Higher scale value appears in 53.

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Type of Objective Skill **Factor** VI **No.** 49
Skill or Knowledge Category Oral Use of a Relevant Language **Scale Value** 4.0
Occupation Quality Assurance Aide **Level** 1
Refers to Task Code No(s).: 147 192

Is there Cross Reference? ...Yes(x) ...No( ) If yes, see footnote(s).

Content: **A graduate of the program at this educational level must be able to** communicate orally (in an appropriate language) and comprehend what is said in that language with a sufficient degree of precision to accomplish the following activities by expressing or comprehending meaning with the degree of precision needed:

1. Asking about orders or suggestions to change technique charts for specific x-ray and fluoroscopic equipment; informing staff of changes (Task 147).

2. Discussing with technologist or radiologist image quality and contrast settings available with xeroradiography equipment (Task 192).

To accomplish this, the student must be able to deal with the nuances of oral language with sufficient precision to use the words needed correctly in context, or grasp the meaning (or question a speaker about intended meaning), so that the activities involved can be accomplished satisfactorily.

Cross Reference Footnotes: See The Following Curriculum Objectives:
Lower scale value appears in: 42 43 44 45 46.
Same scale value appears in: 47 48 50 51 52.
Higher scale value appears in: 53.

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Type of Objective Skill Factor VI No. 50
Skill or Knowledge Category Oral Use of a Relevant Language Scale Value 4.0
Occupation Quality Assurance Technician Level 2
Refers to Task Code No(s).: 175 280 527 529 530 531 532 533 535 537 539 540 543 544 545 548 549 550

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to communicate orally (in an appropriate language) and comprehend what is said in that language with a sufficient degree of precision to accomplish the following activities by expressing or comprehending meaning with the degree of precision needed:

1. Discussing possible changes in technique charts for specific x-ray machines based on results of penetrometer calibration test of kVp and mA selectors (Task 175).

2. Discussing possible reasons for unusually high radiation exposure reading on performer's radiation detection device; discussing possible transfer of work (Task 280).

3. In retrieving computerized transverse axial scans, discussing incomplete or unclear information on requisition with appropriate staff; explaining display options (Task 527).

4. Discussing results of tests of x-ray or film processing equipment, radiation survey, or radiation monitoring results with supervisor or radiologist; explaining effect of problems and deviations from acceptable standards in terms of patient exposure, diagnostic reliability, legal requirements (Tasks 529, 530, 531, 532, 533, 535, 537, 539, 540, 543, 545, 548, 549, 550).

5. Discussing results of test of exposure characteristics of x-ray or dosimetric films and making suggestions on the disposition of the films (Task 544).

To accomplish this, the student must be able to deal with the nuances of oral language with sufficient precision to use the words needed correctly in context, or grasp the meaning (or question a speaker about intended meaning), so that the activities involved can be accomplished satisfactorily.

Cross Reference Footnotes: See The Following Curriculum Objectives:
Lower scale value appears in: 42 43 44 45 46.
Same scale value appears in: 47 48 49 51 52.
Higher scale value appears in 53.

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Type of Objective Skill Factor III No. 51

Skill or Knowledge Category Oral Use of a Relevant Language Scale Value 4.0

Occupation Radiologic Technologist Level 3

Refers to Task Code No(s).: 81 280 353 369 370 371 372 373 491 492 493 494 495 497 498 504 505 507 509 510 511 512 513 514 515 516 517 518 519

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to communicate orally (in an appropriate language) and comprehend what is said in that language with a sufficient degree of precision to accomplish the following activities by expressing or comprehending meaning with the degree of precision needed:

1. In providing technical review of "plain film" radiographs, giving opinions, discussing reasons, making or explaining recommendations to co-worker (Task 81).

2. Discussing possible reasons for unusually high radiation exposure reading on performer's radiation detection device; discussing possible transfer of work (Task 280).

3. Participating in meeting of technologists in x-ray department; raising questions and/or discussing issues such as patient care, departmental functioning, rules, new equipment (Task 353).

4. Discussing precautions in dealing with patient; explaining use of radiation shielding, asking about equipment locations in relation to bedside or operating room radiography (Tasks 369, 370, 371, 372, 373).

5. Discussing safety procedures, equipment, use of anesthesia, and information on timing of procedures (Tasks 370, 371, 372, 373, 498, 504, 505,507, 509, 510, 511, 512, 513, 514, 515, 516, 517, 518, 519).

6. Discussing incomplete, confusing,or unclear requisition, precautions needed in dealing with patient, positioning options, and/or contraindications to radiographic examination with supervisor or radiologist (Tasks 491, 492, 493, 494, 495, 497, 498, 504, 505, 507, 509, 510, 511, 512, 513, 514, 515, 516, 517, 518, 519).

7. Explaining examination procedure to patient or accompanying family member; answering questions as appropriate (Tasks 491, 492, 493, 494, 495, 497, 504, 505, 507, 509, 510, 511, 512, 513, 514, 515, 516, 517, 518, 519).

To accomplish this, the student must be able to deal with the nuances of oral language with sufficient precision to use the words needed correctly in context, or grasp the meaning (or question a speaker about intended meaning), so that the activities involved can be accomplished satisfactorily.

Cross Reference Footnotes: See The Following Curriculum Objectives:
Lower scale value appears in: 42 43 44 45 46.
Same scale value appears in: 47 48 49 50 52.
Higher scale value appears in: 53.

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Type of Objective Skill **Factor** A **No.** 52

Skill or Knowledge Category Oral Use of a Relevant Language **Scale Value** 4.0

Occupation Administrative Technologist **Level** 3

Refers to Task Code No(s).: 186 293 294

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to communicate orally (in an appropriate language) and comprehend what is said in that language with a sufficient degree of precision to accomplish the following activities by expressing or comprehending meaning with the degree of precision needed:

1. Explaining purpose of orientation to new staff; describing work procedures, record keeping, scheduling; answering questions (Task 186).

2. In attending private meeting with supervisor, discussing problems raised by supervisor about work; raising or discussing own problems (Task 293).

3. In sending staff member on a work assignment, explaining what is to be done (Task 294).

To accomplish this, the student must be able to deal with the nuances of oral language with sufficient precision to use the words needed correctly in context, or grasp the meaning (or question a speaker about intended meaning), so that the activities involved can be accomplished satisfactorily.

Cross Reference Footnotes: See The Following Curriculum Objectives:

Lower scale value appears in: 42 43 44 45 46.

Same scale value appears in: 47 48 49 50 51.

Higher scale value appears in: 53.

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Type of Objective Skill Factor III No. 53
Skill or Knowledge Category Oral Use of a Relevant Language Scale Value 7.5
Occupation Radiologic Technologist Level 3
Refers to Task Code No(s).: 355 356 357 358 359 360 361 362 363 364 365 366 367 368 374 375 376 377 378 379 380 381 382 383 384 385 386 387 388 389 390 463 464 465 466 467 468 496 499 500 501 502 503 506 508 526
Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to communicate orally (in an appropriate language) and comprehend what is said in that language with a sufficient degree of precision to accomplish the following activities by expressing or comprehending meaning with the degree of precision needed:

1. Explaining a problem about the x-ray requisition sheet, contraindications about procedure with supervisor or radiologist; discussing timing of procedures, signals (all tasks listed as appropriate).

2. Explaining to patient what will be involved in the procedure, what type of positions to assume; explaining, rehearsing any breathing or maneuvers to be carried out by patient; indicating what side effects can be expected and what will be done to help patient (all tasks listed as appropriate).

3. Asking about female patient's menstrual cycle and checking on pregnancy possibility; asking about allergies, adverse reaction to contrast (all tasks listed as appropriate).

4. Explaining use of radiation safety shielding to patient and any other staff to be present (all tasks listed as appropriate).

5. Asking about the movement possible in positioning patient and alternatives; discussing special care needed with appropriate staff (all tasks listed as appropriate).

6. Telling patient exactly how to move and breathe during course of x-ray examination (all tasks listed).

To accomplish this, the student must be able to deal with the nuances of oral language with sufficient precision to use the words needed correctly in context,or grasp the meaning (or question a speaker about intended meaning), so that the activities involved can be accomplished satisfactorily.

Cross Reference Footnotes: See The Following Curriculum Objectives:
Lower scale value appears in: 42 43 44 45 46 47 48 49 50 51 52.
Same scale value appears in levels 4 and 5.

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Type of Objective Skill **Factor** IV **No.** 54

Skill or Knowledge Category Reading Use of a Relevant Language **Scale Value** 2.0

Occupation Patient Care Aide **Level** 1

Refers to Task Code No(s).: 74 98 153 155 166 190 193 199 262 278 279 281 287 289 290 301 302 303 520

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to read and comprehend the meaning of any printed or written material (in an appropriate language) with a sufficient degree of precision to accomplish the following activities, based on the preciseness of comprehension of the materials read:

1. Reading physician's orders, patient checklist, or requisition sheet for instructions or details on procedure ordered for patient, what materials to use, or how to proceed with patient in task (Tasks 74, 98, 166, 193, 199, 262, 287, 289, 301, 303, 520).

2. Reading labels on packaged materials or equipment in order to check for presence of appropriate materials or to select appropriate materials for use in task (Tasks 153, 290).

3. Preparing and/or checking identifying labels or checking patient's identity or location by reading patient identification information on requisition sheet and/or on patient's ID bracelet (Tasks 155, 190, 281, 289).

4. Reading schedule and identifying the names of patients scheduled for procedures; reading names so as to place telephone call (Tasks 278, 279, 302).

Cross Reference Footnotes: See The Following Curriculum Objectives:
Same scale value appears in: 55 56 57 58 59.
Higher scale value appears in: 60 61 62 63.

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Type of Objective Skill Factor IV No. 55
Skill or Knowledge Category Reading Use of a Relevant Language Scale Value 2.0
Occupation Patient Care Technician Level 2
Refers to Task Code No(s).: 18 65 133 143 156 181 182 185 198 296 298 299 308 522

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to read and comprehend the meaning of any printed or written material (in an appropriate language) with a sufficient degree of precision to accomplish the following activities, based on the preciseness of comprehension of the materials read:

1. Reading physician's orders, patient checklist, or requisition sheet for instructions or details on procedure for patient, what materials to use, how to proceed with patient in task, quantities ordered (Tasks 18, 65, 133, 143, 156, 181, 182, 198, 298, 299, 308).
2. Reading labels on packaged materials, supplies, or equipment in order to check for presence of appropriate materials or to select appropriate materials to use in task (Tasks 133, 156, 185, 198, 296, 298, 299, 522).

Cross Reference Footnotes: See The Following Curriculum Objectives:
Same scale value appears in: 54 56 57 58 59.
Higher scale value appears in: 60 61 62 63.

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Type of Objective Skill **Factor** VI **No.** 56

Skill or Knowledge Category Reading Use of a Relevant Language **Scale Value** 2.0

Occupation Quality Assurance Aide **Level** 1

Refers to Task Code No(s).: 69 71 72 79 80 95 134 135 136 137 147 163 164 180 192 222 227 260 264 267 269 274 275 284 285 286 288 300 304 354

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to read and comprehend the meaning of any printed or written material (in an appropriate language) with a sufficient degree of precision to accomplish the following activities, based on the preciseness of comprehension of the materials read:

1. Reading identification information, labels on materials, equipment, supplies,or schedules in order to carry out task, make checks,or return materials to proper location (Tasks 69, 71, 79, 80, 135, 136, 137, 180, 227, 264, 267, 269, 274, 284, 285, 286, 300, 304, 354).

2. Reading standard orders or formulas for mixtures to prepare, materials or supplies to assemble or quantities to use for specific procedures or to restock supplies (Tasks 72, 79, 80, 180, 227, 260, 274, 354).

3. Reading written orders, requisition, or check list in order to determine how to proceed in task (Tasks 95, 275).

4. Reading charts or forms in order to fill out information on records or interpret test results (Tasks 95, 134, 137, 147, 163, 164, 264, 288).

5. Reading indicators on equipment to determine condition of equipment (Tasks 192, 222).

Cross Reference Footnotes: See The Following Curriculum Objectives:
Same scale value appears in: 54 55 57 58 59.
Higher scale value appears in: 60 61 62 63.

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Type of Objective Skill Factor VI No. 57
Skill or Knowledge Category Reading Use of a Relevant Language Scale Value 2.0
Occupation Quality Assurance Technician Level 2
Refers to Task Code No(s).: 78 175 178 187 534

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to read and comprehend the meaning of any printed or written material (in an appropriate language) with a sufficient degree of precision to accomplish the following activities, based on the preciseness of comprehension of the materials read:

1. Reading identification information to sort or group materials, records, or supplies, or make check or test (Tasks 78, 175, 178, 187, 534).

2. Reading records, indicators, or charts to carry out tests or compare results (Tasks 175, 178, 187, 534).

Cross Reference Footnotes: See The Following Curriculum Objectives:
Same scale value appears in: 54 55 56 58 59.
Higher scale value appears in: 60 61 62 63.

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Type of Objective Skill **Factor** III **No.** 58

Skill or Knowledge Category Reading Use of a Relevant Language **Scale Value** 2.0

Occupation Radiologic Technologist **Level** 3

Refers to Task Code No(s).: 353 370 371 372 373

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to read and comprehend the meaning of any printed or written material (in an appropriate language) with a sufficient degree of precision to accomplish the following activities, based on the preciseness of comprehension of the materials read:

1. Reading agenda of meeting and own notes (Task 353).
2. Reading information on requisition sheet to determine who is involved in procedure, the procedure, the equipment ordered, the location, time and/or other orders (Tasks 370, 371, 372, 373).

Cross Reference Footnotes: See The Following Curriculum Objectives:
Same scale value appears in: 54 55 56 57 59.
Higher scale value appears in: 60 61 62 63.

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Type of Objective Skill **Factor** A **No.** 59
Skill or Knowledge Category Reading Use of a Relevant Language **Scale Value** 2.0
Occupation Administrative Technologist **Level** 3
Refers to Task Code No(s).: 76 128 129 131 272 277 293 294

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to read and comprehend the meaning of any printed or written material (in an appropriate language) with a sufficient degree of precision to accomplish the following activities, based on the preciseness of comprehension of the materials read:

1. Reading labels, lists of supplies or "par levels," instructions on tally sheets used to record narcotics supplies, categories on order forms and control sheets, in order to take inventory or to order supplies (Tasks 76, 128, 129).

2. Reading relevant information on schedules and/or requisition sheets in assigning staff to work assignments or scheduling patients for procedures (Tasks 131, 272, 277).

3. Reading written warning or evaluation of performer in order to decide whether to sign that it is acknowledged (Task 293).

4. Reading note written personally or by co-worker, or reading requisition in order to tell staff member what activity is to be carried out (Task 294).

Cross Reference Footnotes: See The Following Curriculum Objectives:
Same scale value appears in: 54 55 56 57 58.
Higher scale value appears in: 60 61 62 63.

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Type of Objective Skill **Factor** IV **No.** 60
Skill or Knowledge Category Reading Use of a Relevant Language **Scale Value** 5.0
Occupation Patient Care Technician **Level** 2
Refers to Task Code No(s).: 33 280

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to read and comprehend the meaning of any printed or written material (in an appropriate language) with a sufficient degree of precision to accomplish the following activites, based on the preciseness of comprehension of the materials read:

1. Reading patient's chart to review relevant medical history in connection with removal of sutures (Task 33).

2. Reading letter informing performer of unusually high monthly radiation exposure or of high cumulative exposure and/or requesting presence at an interview (Task 280).

Cross Reference Footnotes: See The Following Curriculum Objectives:
Lower scale value appears in: 54 55 56 57 58 59.
Same scale value appears in 61 62 63.

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Type of Objective Skill **Factor** VI **No.** 61
Skill or Knowledge Category Reading Use of a Relevant Language **Scale Value** 5.0
Occupation Quality Assurance Aide **Level** 1
Refers to Task Code No(s).: 8 70 273

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: **A graduate of the program at this educational level must be able to** read and comprehend the meaning of any printed or written material (in an appropriate language) with a sufficient degree of precision to accomplish the following activities, based on the preciseness of comprehension of the materials read:

1. Reading operator's manual in connection with problems in shutting down computerized transverse axial tomography equipment (Task 8).
2. Reading manufacturer's directions on preparing refills of developer and/or fixer for hand processing of x-ray films (Task 70), or automatic processors (Task 273).

Cross Reference Footnotes: See The Following Curriculum Objectives:
Lower scale value appears in: 54 55 56 57 58 59.
Same scale value appears in: 60 62 63.

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Type of Objective Skill Factor VI No. 62

Skill or Knowledge Category Reading Use of a Relevant Language Scale Value 5.0

Occupation Quality Assurance Technician Level 2

Refers to Task Code No(s).: 276 280 523 524 525 527 529 530 531 532 533 535 537 538 539 540 543 544 545 548 549 550 553 554 556

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to read and comprehend the meaning of any printed or written material (in an appropriate language) with a sufficient degree of precision to accomplish the following activities, based on the preciseness of comprehension of the materials read:

1. Reading manufacturer's directions on preparing refills of developer and/or fixer for automatic x-ray film processors (Task 276).
2. Reading letter informing performer of unusually high monthly radiation exposure or of high cumulative exposure and/or requesting presence at an interview (Task 280).
3. Reading operator's manual in connection with problems in preparation, maintenance, check of calibration,or operation of retrieval functions of computerized transverse axial tomography equipment (Tasks 523, 524, 525, 527).
4. Reading standard test procedures, government standards, test forms and records,and manufacturers' specifications in connection with tests of diagnostic radiography equipment, film processors, film batches, radiation surveys, and radiation monitoring (Tasks 529, 530, 531, 532, 533, 535, 537, 538, 539, 540, 543, 544, 545, 548, 549, 550).
5. Reading descriptions of steps to be followed in calibrating, processing, reading,and recording radiation exposure in connection with dosimetric films or thermoluminescent dosimeters (Task 553).
6. Reading instructions for entering, evaluating,and reporting personnel radiation exposure data and initiating action on dangerous levels (Task 554).
7. Reading instructions on how to calibrate radiation exposure detection instruments and/or electrical measuring instruments, densitometers, sensitometers and other test instruments (Task 556).

Cross Reference Footnotes: See The Following Curriculum Objectives:

Lower scale value appears in: 54 55 56 57 58 59.

Same scale value appears in: 60 61 63.

Higher scale value appears in level 5.

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Type of Objective Skill Factor III No. 63
Skill or Knowledge Category Reading Use of a Relevant Language Scale Value 5.0
Occupation Radiologic Technologist Level 3
Refers to Task Code No(s).: 81 280 355 356 357 358 359 360 361 362 363 364 365 366 367 368 369 374 375 376 377 378 379 380 381 382 383 384 385 386 387 388 389 390 463 464 465 466 467 468 491 492 493 494 495 496 497 498 499 500 (*continued below)
Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to read and comprehend the meaning of any printed or written material (in an appropriate language) with a sufficient degree of precision to accomplish the following activities, based on the preciseness of comprehension of the materials read:

1. Reading requisition sheet and patient's relevant medical-technical history to determine the examination called for, the part of the body, the views ordered, the purpose, the patient involved, any special considerations; reading to check on possible contraindications, radiation exposure history, any prior preparation, special requests, medications or anesthesia ordered; reading to learn patient's condition, means of arrival, whether accompanied, any special equipment or contrast media ordered, and any other information about how the procedure is to be carried out (all tasks listed except Task 280).

2. Reading letter informing performer of unusually high monthly radiation exposure or of high cumulative exposure and/or requesting presence at an interview (Task 280).

Cross Reference Footnotes: See The Following Curriculum Objectives:
Lower scale value appears in: 54 55 56 57 58 59.
Same scale value appears in: 60 61 62 and level 4.
Higher scale value appears in level 5.

* 501 502 503 504 505 506 507 508 509 510 511 512 513 514 515 516 517 518 519 526.

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Type of Objective Skill

Factor IV No. 64

Skill or Knowledge Category Written Use of a Relevant Language

Scale Value 2.0

Occupation Patient Care Aide

Refers to Task Code No(s).: 278 279 295

Level 1

Is there Cross Reference? ...Yes(x) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to convey meaning by writing or dictating (in an appropriate language) with a sufficient degree of precision in the words, sentences, and/or paragraphs formed to accomplish the following activities, based on the clarity of meaning conveyed in the materials written or dictated:

1. Writing reason for delay or nonappearance of patient for examination (Tasks 278, 279).
2. Making notes in preparation for or during a departmental meeting (Task 295).

Cross Reference Footnotes: See The Following Curriculum Objectives:
Same scale value appears in: 65 66 67 68 69.
Higher scale value appears in 70.

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Type of Objective Skill Factor IV No. 65

Skill or Knowledge Category Written Use of a Relevant Language Scale Value 2.0

Occupation Patient Care Technician Level 2

Refers to Task Code No(s).: 33 156 181 243 522

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to convey meaning by writing or dictating (in an appropriate language) with a sufficient degree of precision in the words, sentences, and/or paragraphs formed to accomplish the following activities, based on the clarity of meaning conveyed in the materials written or dictated:

1. Recording the patient care, treatment, or procedure carried out for patient, any patient reaction, patient's condition (all tasks listed).

Cross Reference Footnotes: See The Following Curriculum Objectives:

Same scale value appears in: 64 66 67 68 69.

Higher scale value appears in: 70.

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Type of Objective Skill Factor VI No. 66

Skill or Knowledge Category Written Use of a Relevant Language Scale Value 2.0

Occupation Quality Assurance Aide Level 1

Refers to Task Code No(s).: 134

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to convey meaning by writing or dictating (in an appropriate language) with a sufficient degree of precision in the words, sentences, and/or paragraphs formed to accomplish the following activities, based on the clarity of meaning conveyed in the materials written or dictated:

1. Recording information on services performed, identification information, referrals made in log book or other records (Task 134).

Cross Reference Footnotes: See The Following Curriculum Objectives:

Same scale value appears in: 64 65 67 68 69.

Higher scale value appears in: 70.

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Type of Objective Skill **Factor** VI **No.** 67
Skill or Knowledge Category Written Use of a Relevant Language **Scale Value** 2.0
Occupation Quality Assurance Technician **Level** 2
Refers to Task Code No(s).: 173 175 178 187 276 525 529 530 531 532 533 534 535 536 537 538 539 540 543 544 545 548 549 556

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to convey meaning by writing or dictating (in an appropriate language) with a sufficient degree of precision in the words, sentences, and/or paragraphs formed to accomplish the following activities, based on the clarity of meaning conveyed in the materials written or dictated:

1. Writing instructions for compensations to be made for inaccuracy of exposure controls such as timer, kVp or mA selectors, or making changes on technique charts (Tasks 173, 175).

2. Recording results of equipment test or radiation monitoring tests, description of any problem or damage, or evaluation of test results; recording what was done (all tasks listed).

Cross Reference Footnotes: See The Following Curriculum Objectives:
Same scale value appears in: 64 65 68 69.
Higher scale value appears in: 70.

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Type of Objective Skill **Factor** III **No.** 68
Skill or Knowledge Category Written Use of a Relevant Language **Scale Value** 2.0
Occupation Radiologic Technologist **Level** 3
Refers to Task Code No(s).: 81 353 355 356 357 358 359 360 361 362 363 364 365 366 367 368 370 371 372 373 374 375 376 377 378 379 380 381 382 383 384 385 386 387 388 389 390 463 464 465 466 467 468 491 492 493 494 495 496 (*continued below)
Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: **A graduate of the program at this educational level must be able to** convey meaning by writing or dictating (in an appropriate language) with a sufficient degree of precision in the words, sentences, and/or paragraphs formed to accomplish the following activities, based on the clarity of meaning conveyed in the materials written or dictated:

1. Recording order for "retakes" of radiographs or suggestions for additional views in connection with quality review of "plain film" radiographs (Task 81).

2. Making notes in preparation for or during a departmental meeting (Task 353).

3. Recording radiographic examination; including date, room, examination type, the views taken including any serial films, the technical factors used, film size, the number of exposures made of each view including retakes; recording fluoroscopic and cine exposure time; recording the estimated radiation dose to which patient was exposed (if posted information on dosage is available); recording any problem with equipment, any special care provided patient; recording reasons any views called for in the initial request could not be obtained (all tasks listed except Tasks 81, 353 as appropriate).

Cross Reference Footnotes: See The Following Curriculum Objectives:
Same scale value appears in: 64 65 66 67 69 and level 4.
Higher scale value appears in: 70.

* 497 498 499 500 501 502 503 504 505 506 507 508 509 510 511 512 513 514 515 516 517 518 519 526.

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Factor A No. 69

Type of Objective Skill

Scale Value 2.0

Skill or Knowledge Category Written Use of a Relevant Language

Level 3

Occupation Administrative Technologist

Refers to Task Code No(s).: 165 293

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to convey meaning by writing or dictating (in an appropriate language) with a sufficient degree of precision in the words, sentences, and/or paragraphs formed to accomplish the following activities, based on the clarity of meaning conveyed in the materials written or dictated:

1. Making personal note for own use about staff member's excessive lateness, absenteeism,or abuse of lunch or break times for later use in private meeting with staff member (Task 165).
2. Writing comments about written evaluation of own work made by supervisor to indicate performer's own opinion (Task 293).

Cross Reference Footnotes: See The Following Curriculum Objectives:

Same scale value appears in: 64 65 66 67 68.

Higher scale value appears in: 70.

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Type of Objective Skill **Factor** VI **No.** 70
Skill or Knowledge Category Written Use of a Relevant Language **Scale Value** 5.0
Occupation Quality Assurance Technician **Level** 2
Refers to Task Code No(s).: 550 554

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to convey meaning by writing or dictating (in an appropriate language)with a sufficient degree of precision in the words, sentences, and/or paragraphs formed to accomplish the following activities, based on the clarity of meaning conveyed in the materials written or dictated:

1. Preparing a report for use by personnel such as radiologists, technologists,or nurses indicating the safest positions for personnel who must remain in room during radiographic or fluoroscopic examination based on results of survey (Task 550).

2. Writing a letter arranging an interview for a staff member who has a high radiation exposure incident or has a high cumulative dose level; preparing reports for staff or government on individuals occupationally exposed to ionizing radiation (Task 554).

Cross Reference Footnotes: See The Following Curriculum Objectives:
Lower scale value appears in: 64 65 66 67 68 69.
Same scale value appears in level 5.

CURRICULUM OBJECTIVE SHEET

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Type of Objective Skill Factor IV No. 71
Skill or Knowledge Category Decision Making on Methods Scale Value 1.5
Occupation Patient Care Aide Level 1
Refers to Task Code No(s).: 98 199 262 279 281 282 283 287 295 490 520 521

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to carry out the responsibility of exercising a choice over how to carry out the following task activities by choosing the appropriate option regarding what to do, what to use, or how to do the activities as appropriate to the instances of the tasks as they present themselves, and within the guidelines provided for making the choice. The tasks or activities in which this skill must be exercised are as follows:

1. Deciding whether patient can give urine specimen unaided; deciding way to explain to patient how to provide clean catch urine specimen (Task 98).

2. Deciding whether to use oral thermometer to take the patient's temperature; deciding whether to give pacifier or bottle to quiet pediatric patient (Task 199).

3. Deciding whether to use another ECG machine, have replacement or adjustment made,or to adjust personally at once or at a later time if ECG machine is out of cardiograph paper or not recording adequately (Task 262).

4. Deciding whether to send co-worker if no messenger is available to transport patient for procedure (Task 279).

5. Deciding whether to notify co-workers to use isolation procedures when handling patient in addition to attaching an index card to patient's garments indicating that this is an isolation patient (Task 281).

6. Deciding whether to assist patient to get undressed and put on gown or redress; deciding how to assist patient (Task 282).

7. Deciding whether a dressing requires the attention of more senior staff; deciding whether to inform RN nearby or call patient's ward and describe the situation (Task 283).

8. Deciding whether patient needs to be fed; deciding how to feed (Task 287).

9. Deciding whether to make notes in preparation for departmental meeting; deciding how to participate at meeting (Task 295).

10. Deciding what sanitary precautions to take with patient based on patient's condition (Task 490).

11. Deciding how to fold sheet used to mummy patient based on the access needed to parts of the body in the procedure ordered (Task 490).

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Type of Objective Skill Factor IV No. 71
Skill or Knowledge Cagegory Decision Making on Methods Scale Value 1.5

Content Continued

12. Deciding whether to contact staff to receive more detailed orders or information before preparing a patient for ECG monitoring (Task 520).

13. Deciding whether to circle (mark) an apparent hematoma at arterial puncture site and/or to report to appropriate staff member (Task 521).

To accomplish appropriate decision making on methods the student must be able to indicate the variety of situations likely to occur which would require making the choices, must be able to specify the choices available, and must be able to state what appropriate guidelines there are in order to accomplish the tasks successfully. The student should be able to list the choices, their indications, and must be able to provide justifications for the choices.

Cross Reference Footnotes: See The Following Curriculum Objectives:
Same scale value appears in: 72 73 74 75 76.
Higher scale value appears in: 77 78 79 80 81 82 83 84 85 86.

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Type of Objective Skill Factor IV No. 72
Skill or Knowledge Category Decision Making on Methods Scale Value 1.5
Occupation Patient Care Technician Level 2
Refers to Task Code No(s).: 143 181 298

Is there Cross Reference? ...Yes(X) ...No( ) if yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to carry out the responsibility of exercising a choice over how to carry out the following task activities by choosing the appropriate option regarding what to do, what to use, or how to do the activities as appropriate to the instances of the tasks as they present themselves, and within the guidelines provided for making the choice. The tasks or activities in which this skill must be exercised are as follows:

1. In urethral catheterization, deciding whether to use hands for outer wrapper of catheter and transfer forceps or use sterile gloves with catheter; deciding on forceps or change of gloves after cleansing patient; deciding whether to massage patient's abdomen and exert pressure to induce voiding; deciding whether there is pain or resistance to passage of catheter sufficient to terminate (Tasks 143, 181).
2. Deciding whether to explain to accompanying adult how to help while performer administers medication orally to pediatric patient (Task 298).

To accomplish appropriate decision making on methods the student must be able to indicate the variety of situations likely to occur which would require making the choices, must be able to specify the choices available, and must be able to state what appropriate guidelines there are in order to accomplish the tasks successfully. The student should be able to list the choices, their indications for use and their contraindications, and must be able to provide justifications for the choices.

Cross Reference Footnotes: See The Following Curriculum Objectives:
Same scale value appears in: 71 73 74 75 76.
Higher scale value appears in: 77 78 79 80 81 82 83 84 85 86.

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Type of Objective Skill Factor VI No. 73
Skill or Knowledge Category Decision Making on Methods Scale Value 1.5
Occupation Quality Assurance Aide Level 1
Refers to Task Code No(s).: 8 69 70 72 79 134 145 163 164 167 192 223 267 297 552

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to carry out the responsibility of exercising a choice over how to carry out the following task activities by choosing the appropriate option regarding what to do, what to use, or how to do the activities as appropriate to the instances of the tasks as they present themselves, and within the guidelines provided for making the choice. The tasks or activities in which this skill must be exercised are as follows:

1. Deciding whether to consult operator's manual, report problem to staff member, call service organization, or have test runs made, or to make test runs personally in connection with problems in shutting down computerized transverse axial tomography equipment (Task 8).

2. In film processing, deciding what identification information to check for depending on what type of film or study is involved; deciding what to use to enter missing information on film; deciding whether to investigate cause of artifacts that may appear on processed films (Task 69).

3. Deciding whether to check film hangers, check for light leaks, drying temperatures in connection with regular inspection, cleaning, and readying of x-ray film hand processing equipment (Task 70).

4. Deciding how to arrange materials to be used in loading x-ray film in cassettes, holders, and/or cartridges (Task 72).

5. Deciding appropriate way to prepare barium sulfate contrast medium based on type of examination, purpose, ingredients and proportions ordered, and the type of patient involved (Task 79).

6. Deciding the appropriate place to obtain required information in order to fill out log book, tally sheet, or for instructional purpose (Task 134).

7. Deciding whether to ask opinion of co-worker about defective or damaged materials or throw parts away in connection with preparation for autoclaving (Task 145).

8. Deciding how to go about filling in cancellation and other report forms based on the information required and physician's required input (Task 163).

9. Deciding whether it is appropriate to inform co-worker that all labels and forms to be used in procedure have been prepared (Task 164).

CURRICULUM OBJECTIVE SHEET (continued) Page 2 of 2

Type of Objective Skill Factor VI No. 73

Skill or Knowledge Cagegory Decision Making on Methods Scale Value 1.5

Content Continued

10. Deciding how to arrange materials for inspection and cleaning of intensifying screens in cassette holders; deciding whether to replace old or damaged screens, discard, or have them repaired (Task 167).

11. Deciding whether to remedy problem personally, call service, or report to supervisor in connection with inspecting, checking, and preparing xeroradiography equipment for use (Task 192).

12. Deciding proper linens to go on unoccupied bed or stretcher bed (Task 223).

13. Deciding whether to apply print coater to translucent film before or after it is viewed by radiologist in connection with Polaroid processing of x-ray film (Task 267).

14. Deciding what to do to obtain a computer control card for serial filming if usable card with correct sequence is not available (Task 297).

15. Deciding whether to remove insert in personnel monitoring badge and replace personally for each staff member, or have each person do this for himself; whether to record personally or have staff member sign own name (Task 552).

To accomplish appropriate decision making on methods the student must be able to indicate the variety of situations likely to occur which would require making the choices, must be able to specify the choices available, and must be able to state what appropriate guidelines there are in order to accomplish the tasks successfully. The student should be able to list the choices, their indications for use and their contraindications, and must be able to provide justifications for the choices.

Cross Reference Footnotes: See The Following Curriculum Objectives:

Same scale value appears in: 71 72 73 74 75 76.

Higher scale value appears in: 77 78 79 80 81 82 83 84 85 86.

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Type of Objective Skill Factor VI No. 74
Skill or Knowledge Category Decision Making on Methods Scale Value 1.5
Occupation Quality Assurance Technician Level 2
Refers to Task Code No(s).: 523

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to carry out the responsibility of exercising a choice over how to carry out the following task activities by choosing the appropriate option regarding what to do, what to use, or how to do the activities as appropriate to the instances of the tasks as they present themselves, and within the guidelines provided for making the choice. The tasks or activities in which this skill must be exercised are as follows:

1. Deciding whether to carry out tests, notify supervisor or staff member or outside service organization in connection with problem in preparing computerized transverse axial tomography equipment for use (Task 523).

To accomplish appropriate decision making on methods the student must be able to indicate the variety of situations likely to occur which would require making the choices, must be able to specify the choices available, and must be able to state what appropriate guidelines there are in order to accomplish the tasks successfully. The student should be able to list the choices, their indications for use and their contraindications, and must be able to provide justifications for the choices.

Cross Reference Footnotes: See The Following Curriculum Objectives:
Same scale value appears in: 71 72 73 75 76.
Higher scale value appears in: 77 78 79 80 81 82 83 84 85 86.

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Type of Objective Skill **Factor** III **No.** 75
Skill or Knowledge Category Decision Making on Methods **Scale Value** 1.5
Occupation Radiologic Technologist **Level** 3
Refers to Task Code No(s).: 353 370 371 372 373

Is tnere Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to carry out the responsibility of exercising a choice over how to carry out the following task activities by choosing the appropriate option regarding what to do, what to use, or how to do the activities as appropriate to the instances of the tasks as they present themselves, and within the guidelines provided for making the choice. The tasks or activities in which this skill must be exercised are as follows:

1. Deciding whether to make notes in preparation for departmental meeting; deciding how to participate at meeting (Task 353).

2. Deciding whether to notify a staff member to clarify or complete information on x-ray examination request; deciding what prior preparations are needed depending on whether mobile x-ray equipment will be brought, accessories to be used, proper dress needed, and consultation with staff (Tasks 370, 371, 372, 373).

3. Selecting appropriate speed and type of x-ray film, grid,and cassette combinations depending on the equipment available,what is appropriate for procedure,and standard institutional practices for operating room radiography (Tasks 370, 371, 373).

4. Deciding how to prepare x-ray film packets or use dental occlusal film packets depending on what is available for intravisceral operating room radiography (Task 372).

To accomplish appropriate decision making on methods the student must be able to indicate the variety of situations likely to occur which would require making the choices, must be able to specify the choices available, and must be able to state what appropriate guidelines there are in order to accomplish the tasks successfully. The student should be able to list the choices, their indications for use and their contraindications, and must be able to provide justifications for the choices.

Cross Reference Footnotes: See The Following Curriculum Objectives:
Same scale value appears in: 71 72 73 74 76.
Higher scale value appears in: 77 78 79 80 81 82 83 84 85 86.

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Type of Objective Skill Factor A No. 76

Skill or Knowledge Category Decision Making on Methods Scale Value 1.5

Occupation Administrative Technologist Level 3

Refers to Task Code No(s).: 294

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to carry out the responsibility of exercising a choice over how to carry out the following task activities by choosing the appropriate option regarding what to do, what to use, or how to do the activities as appropriate to the instances of the tasks as they present themselves, and within the guidelines provided for making the choice. The tasks or activities in which this skill must be exercised are as follows:

1. Deciding whether to tell staff member being assigned an activity what to do in detail, refer to standard orders, write out information, or fill out requisition sheet (Task 294).

To accomplish appropriate decision making on methods the student must be able to indicate the variety of situations likely to occur which would require making the choices, must be able to specify the choices available, and must be able to state what appropriate guidelines there are in order to accomplish the tasks successfully. The student should be able to list the choices, their indications for use and their contraindications, and must be able to provide justifications for the choices.

Cross Reference Footnotes: See The Following Curriculum Objectives:

Same Scale value appears in: 71 72 73 74 75.

Higher scale value appears in: 77 78 79 80 81 82 83 84 85 86.

CURRICULUM OBJECTIVE SHEET Page 1 of 1

Type of Objective Skill Factor IV No. 77
Skill or Knowledge Category Decision Making on Methods Scale Value 3.0
Occupation Patient Care Aide Level 1
Refers to Task Code No(s).: 155 166 190 193 278 303

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to carry out the responsibility of exercising a choice over how to carry out the following task activities by choosing the appropriate option regarding what to do, what to use, or how to do the activities as appropriate to the instances of the tasks as they present themselves, and within the guidelines provided for making the choice. The tasks or activities in which this skill must be exercised are as follows:

1. Deciding how to instruct patient to provide urine specimen, whether to assist, at what point to attach label, whether to show specimen, take to laboratory, or have staff member deliver (Task 155).

2. Selecting what needs to be done in preparing examination or treatment room or isolation area for examination under isolation or decontamination conditions; deciding the clean-up to be done afterward (Task 166).

3. Selecting how to go about assisting a patient to or from a wheelchair, stretcher, bed, or treatment table (Task 190).

4. Selecting what to do personally and what to ask co-worker to do in readying a patient for radiography or similar examination or treatment procedure (Task 193).

5. Selecting how to go about asking ward or floor supervisor to avoid frequent missed patient appointments and to notify department of cancellations (Task 278).

6. Deciding whether to have co-worker feed patient, encourage patient to defecate and have co-worker report back, and/or examine urine or feces specimen and report back (Task 303).

To accomplish appropriate decision making on methods the student must be able to indicate the variety of situations likely to occur which would require making the choices, must be able to specify the choices available, and must be able to state what appropriate guidelines there are in order to accomplish the tasks successfully. The student should be able to list the choices, their indications for use and their contraindications, and must be able to provide justifications for the choices.

Cross Reference Footnotes: See The Following Curriculum Objectives:
Lower scale value appears in: 71 72 73 74 75 76.
Same scale value appears in: 78 79 80 81 82.
Higher scale value appears in: 83 84 85 86.

CURRICULUM OBJECTIVE SHEET Page 1 of 2

Type of Objective Skill Factor IV No. 78
Skill or Knowledge Category Decision Making on Methods Scale Value 3.0
Occupation Patient Care Technician Level 2
Refers to Task Code No(s).: 18 33 65 133 156 182 185 243 299 308

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to carry out the responsibility of exercising a choice over how to carry out the following task activities by choosing the appropriate option regarding what to do, what to use, or how to do the activities as appropriate to the instances of the tasks as they present themselves, and within the guidelines provided for making the choice. The tasks or activities in which this skill must be exercised are as follows:

1. Deciding whether to have staff member prepare labels or materials for blood sample or deciding to prepare personally (Task 18).

2. Deciding whether to delegate all or part of task of removing patient's sutures (Task 33).

3. Selecting steps appropriate to decontamination technique in preparing bronchial secretion specimen for laboratory (Task 65).

4. Deciding whether to have staff member prepare medication to be used in intramuscular or subcutaneous injection; deciding whether, if the type of medication or dosage seems in error, inappropriate, was already given, or is contraindicated by allergy, to refuse to inject and report to physician (Tasks 133, 299).

5. Deciding whether to have staff member bring materials and medications for irrigation and/or dressing of wound or opening for catheter, for administration of oxygen (Tasks 156, 185).

6. Deciding whether to drape patient who will have suction machine applied; deciding whether to cleanse area surrounding tracheal opening, how to handle clean-up after procedure (Task 182).

7. Selecting the proper restraints to use for patient (Task 243).

8. Deciding whether to prepare patient for ECG monitoring personally or have another staff member do this; deciding whether to reposition electrodes based on ECG display (Task 308).

CURRICULUM OBJECTIVE SHEET (continued) Page 2 of 2

Type of Objective Skill Factor IV No. 78
Skill or Knowledge Cagegory Decision Making on Methods Scale Value 3.0

Content Continued

To accomplish appropriate decision making on methods the student must be able to indicate the variety of situations likely to occur which would require making the choices, must be able to specify the choices available, and must be able to state what appropriate guidelines there are in order to accomplish the tasks successfully. The student should be able to list the choices, their indications for use and their contraindications, and must be able to provide justifications for the choices.

Cross Reference Footnotes: See The Following Curriculum Objectives:
Lower scale value appears in: 71 72 73 74 75 76.
Same scale value appears in: 77 79 80 81 82.
Higher scale value appears in: 83 84 85 86.

CURRICULUM OBJECTIVE SHEET Page 1 of 2

Type of Objective Skill Factor VI No. 79
Skill or Knowledge Category Decision Making on Methods Scale Value 3.0
Occupation Quality Assurance Aide Level 1
Refers to Task Code No(s).: 71 80 95 135 136 147 184 227 273 274 275 284 300 304 354

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to carry out the responsibility of exercising a choice over how to carry out the following task activities by choosing the appropriate option regarding what to do, what to use, or how to do the activities as appropriate to the instances of the tasks as they present themselves, and within the guidelines provided for making the choice. The tasks or activities in which this skill must be exercised are as follows:

1. Selecting time for developing x-ray films manually based on type of film and strength of developer solution; deciding when to agitate films to loosen air bubbles (Task 71).

2. Selecting arrangement of materials on procedure tray, order of preparation, whether to label (Tasks 80, 274).

3. Selecting tablet or dipstick method for testing urine for glucose or acetone depending on request, availability of materials, or accuracy needed (Task 95).

4. Deciding on what to do in readying treatment or examination room after use; deciding whether to have soiled or contaminated room cleaned by staff member or appropriate housekeeping department (Task 135).

5. Deciding how and where to distribute contents of non-narcotic supplies delivered based on order, usual storage locations (Task 136).

6. Deciding whether to make changes on an X-ray machine technique chart or make new chart; deciding how to inform staff of changes in chart (Task 147).

7. Deciding whether to have co-worker obtain missing items or records, obtain personally, or call for replacement (Tasks 184, 227, 304, 354).

8. Deciding whether to clean roller assembly of automatic x-ray film processor by removing or while in position (Task 273).

9. Deciding how to group scout films and counterpart post-injection films in preparing subtraction prints, how to group these with their respective subtraction prints after they are made; selecting materials; deciding whether to redo any steps, whether to trim subtraction mask (Task 275).

CURRICULUM OBJECTIVE SHEET (continued) Page 2 of 2

Type of Objective Skill Factor VI No. 79

Skill or Knowledge Cagegory Decision Making on Methods Scale Value 3.0

Content Continued

10. Deciding whether to clean suction machine, wash collection bottle,or have staff member do this in connection with check of presence and functioning of equipment (Task 284).

11. Deciding when to check and submit accumulated check lists of services, how to obtain missing information, whether to have co-worker take to appropriate office (Task 300).

To accomplish appropriate decision making on methods the student must be able to indicate the variety of situations likely to occur which would require making the choices, must be able to specify the choices available, and must be able to state what appropriate guidelines there are in order to accomplish the tasks successfully. The student should be able to list the choices, their indications for use and their contraindications, and must be able to provide justifications for the choices.

Cross Reference Footnotes: See The Following Curriculum Objectives:

Lower scale value appears in: 71 72 73 74 75 76.

Same scale value appears in: 77 78 80 81 82.

Higher scale value appears in: 83 84 85 86.

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Type of Objective Skill Factor VI No. 80

Skill or Knowledge Category Decision Making on Methods Scale Value 3.0

Occupation Quality Assurance Technician Level 2

Refers to Task Code No(s).: 78 173 175 178 187 524 527 533 536 538 553 554

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to carry out the responsibility of exercising a choice over how to carry out the following task activities by choosing the appropriate option regarding what to do, what to use, or how to do the activities as appropriate to the instances of the tasks as they present themselves, and within the guidelines provided for making the choice. The tasks or activities in which this skill must be exercised are as follows:

1. Selecting sources to refer to in order to complete missing information on radiographs or other diagnostic materials (Task 78).

2. Selecting further checks of x-ray machine timers after spinning top test depending on the pattern of light and dark dots (Task 173).

3. Selecting means of informing staff of compensations needed in technical factor settings (changes on technique chart for unit, posting notice, telling staff personally)(Task 175).

4. Deciding whether to do spinning top test after noting timer problem during check; deciding whether to shut down unit or report problem to staff after checking and preparing fluoroscope unit for use (Task 178).

5. Deciding whether to have cassette checked for proper assembly after checking film-screen contact (Task 187).

6. Selecting steps for preventive maintenance of computerized transverse axial tomography unit based on type of equipment, what is regularly done, or request to investigate (Task 524).

7. Selecting steps to correct or check problem while retrieving, displaying, and/or copying computerized transverse axial scans based on type of equipment; selecting settings and controls appropriate to unit (Task 527).

8. Deciding whether to check that standard x-ray film processing conditions are in use in connection with check of automatic exposure termination of diagnostic x-ray equipment (Task 533).

9. Deciding on hand tools, sequence of checks in providing visual and/or manual inspection of diagnostic radiography system; deciding whether to readjust draping of cables (Task 536).

Type of Objective Skill Factor VI No. 80
Skill or Knowledge Cagegory Decision Making on Methods Scale Value 3.0

Content Continued

10. Deciding whether to repeat HVL test at another kVp setting if equipment appears not to be within acceptable range in connection with check of filtration of diagnostic x-ray equipment (Task 538).

11. Deciding whether to have ion chamber or automatic charting equipment calibrated before use in reading film or TLD dosimeters; deciding number of dosimeters to use for calibration; deciding whether to have film dosimeters processed by staff member or do personally (Task 553).

12. Deciding how to prepare letter, reports and/or arrange interviews and follow-up in cases of unusually high personnel dosage levels (Task 554).

To accomplish appropriate decision making on methods the student must be able to indicate the variety of situations likely to occur which would require making the choices, must be able to specify the choices available, and must be able to state what appropriate guidelines there are in order to accomplish the tasks successfully. The student should be able to list the choices, their indications for use and their contraindications, and must be able to provide justifications for the choices.

Cross Reference Footnotes: See The Following Curriculum Objectives:
Lower scale value appears in: 71 72 73 74 75 76.
Same scale value appears in: 77 78 79 81 82.
Higher scale value appears in: 83 84 85 86.

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Type of Objective Skill Factor III No. 81

Skill or Knowledge Category Decision Making on Methods Scale Value 3.0

Occupation Radiologic Technologist Level 3

Refers to Task Code No(s).: 81 374 375 376 377 378 379 380 381 382 383 384 385 386 387 388 389 390 463 464 465 466 467 468 497 498 499 500 501 502 503 504 505 506 507 508 509 510 511 512 513 514 515 516 517 518 519 526

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to carry out the responsibility of exercising a choice over how to carry out the following task activities by choosing the appropriate option regarding what to do, what to use, or how to do the activities as appropriate to the instances of the tasks as they present themselves, and within the guidelines provided for making the choice. The tasks or activities in which this skill must be exercised are as follows:

1. Deciding whether to recommend "retakes" of radiographs or additional views based on requisition sheet orders while providing technical quality review of "plain film" radiographs; deciding whether to ask opinion of radiologist about adequacy for diagnostic purposes; deciding whether to assist technologist or explain what is needed; deciding whether to report to supervisor (Task 81).

2. Deciding whether to bring to attention of radiologist missing or inadequate information or possible contraindications, or to ask about information to help in positioning or care of patient; deciding whether to personally prepare any materials or supplies; deciding whether to arrange for isolation or decontamination procedures, whether to assist in transporting patient from holding area and/or to or from examination table or have co-worker assist; selecting appropriate steps to accommodate patient's condition and mobility--in tasks involving tomography and/or contrast media where radiologist is in charge (all tasks listed except Task 81).

To accomplish appropriate decision making on methods the student must be able to indicate the variety of situations likely to occur which would require making the choices, must be able to specify the choices available, and must be able to state what appropriate guidelines there are in order to accomplish the tasks successfully. The student should be able to list the choices, their indications for use and their contraindications, and must be able to provide justifications for the choices.

Cross Reference Footnotes: See The Following Curriculum Objectives:

Lower scale value appears in: 71 72 73 74 75 76.

Same scale value appears in: 77 78 79 80 82.

Higher scale value appears in: 83 84 85 86.

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Type of Objective Skill Factor A No. 82
Skill or Knowledge Category Decision Making on Methods Scale Value 3.0
Occupation Administrative Technologist Level 3
Refers to Task Code No(s).: 76 131 132 165 186 272 277 293

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to carry out the responsibility of exercising a choice over how to carry out the following task activities by choosing the appropriate option regarding what to do, what to use, or how to do the activities as appropriate to the instances of the tasks as they present themselves, and within the guidelines provided for making the choice. The tasks or activities in which this skill must be exercised are as follows:

1. Deciding supplies to order based on information on supplies on hand and requests for supplies (Task 76).
2. Deciding whether to reassign staff members to duties and/or to ask supervisor for additional help (Task 131).
3. Deciding whether furniture or equipment needs to be repaired by assessing personally or obtaining information from staff (Task 132).
4. Determining whether staff member has been excessively absent, late,or abusive of lunch and/or break times; deciding whether to raise issues personally or inform supervisor (Task 165).
5. Deciding what procedures are relevant to new staff and should be included in orientation (Task 186).
6. Deciding what characteristics such as urgency, degree of seriousness of condition to take account of in preparing patient schedule (Tasks 272, 277).
7. Deciding whether a meeting is necessary with supervisor to discuss own problems or problems with own subordinates (Task 293).

To accomplish appropriate decision making on methods the student must be able to indicate the variety of situations likely to occur which would require making the choices, must be able to specify the choices available, and must be able to state what appropriate guidelines there are in order to accomplish the tasks successfully. The student should be able to list the choices, their indications for use and their contraindications, and must be able to provide justifications for the choices.

Cross Reference Footnotes: See The Following Curriculum Objectives:
Lower scale value appears in: 71 72 73 74 75 76.
Same scale value appears in: 77 78 79 80 81.
Higher scale value appears in: 83 84 85 86.

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Type of Objective Skill Factor IV No. 83

Skill or Knowledge Category Decision Making on Methods Scale Value 4.5

Occupation Patient Care Aide Level 1

Refers to Task Code No(s).: 73 113 138 290

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to carry out the responsibility of exercising a choice over how to carry out the following task activities by choosing the appropriate option regarding what to do, what to use, or how to do the activities as appropriate to the instances of the tasks as they present themselves, and within the guidelines provided for making the choice. The tasks or activities in which this skill must be exercised are as follows:

1. Deciding how to reassure patient or accompanying adult about procedures, explain what will happen, answer questions (Tasks 73, 113, 290).

2. Deciding what to bring to physician's attention regarding symptoms or concerns manifested by patient (Task 138).

To accomplish appropriate decision making on methods the student must be able to indicate the variety of situations likely to occur which would require making the choices, must be able to specify the choices available, and must be able to state what appropriate guidelines there are in order to accomplish the tasks successfully. The student should be able to list the choices, their indications for use and their contraindications, and must be able to provide justifications for the choices.

Cross Reference Footnotes: See The Following Curriculum Objectives:

Lower scale value appears in: 71 72 73 74 75 76 77 78 79 80 81 82.

Same scale value appears in: 84 85.

Higher scale value appears in: 86.

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Type of Objective Skill Factor VI No. 84
Skill or Knowledge Category Decision Making on Methods Scale Value 4.5
Occupation Quality Assurance Technician Level 2
Refers to Task Code No(s).: 276 525 529 530 531 532 534 535 537 539 540 543 544 545 548 549 550 556

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to carry out the responsibility of exercising a choice over how to carry out the following task activities by choosing the appropriate option regarding what to do, what to use, or how to do the activities as appropriate to the instances of the tasks as they present themselves, and within the guidelines provided for making the choice. The tasks or activities in which this skill must be exercised are as follows:

1. Deciding how to locate source of problem in automatic x-ray film processor; deciding whether to do minor repair personally or have repairs done (Task 276).

2. Deciding on checks to make after having encountered problems in check of calibration and accuracy of computerized transverse axial tomography equipment (Task 525).

3. Selecting appropriate test procedures and sequences based on options available, type of equipment, and other tests to be run on diagnostic x-ray equipment (all tasks listed except Tasks 276 and 525).

To accomplish appropriate decision making on methods the student must be able to indicate the variety of situations likely to occur which would require making the choices, must be able to specify the choices available, and must be able to state what appropriate guidelines there are in order to accomplish the tasks successfully. The student should be able to list the choices, their indications for use and their contraindications, and must be able to provide justifications for the choices.

Cross Reference Footnotes: See The Following Curriculum Objectives:
Lower scale value appears in: 71 72 73 74 75 76 77 78 79 80 81 82.
Same scale value appears in: 83 85.
Higher scale value appears in 86 and level 5.

CURRICULUM OBJECTIVE SHEET Page 1 of 1

Type of Objective Skill Factor III No. 85

Skill or Knowledge Category Decision Making on Methods Scale Value 4.5

Occupation Radiologic Technologist Level 3

Refers to Task Code No(s).: 355 356 357 358 359 360 361 362 363 364 365 366 367 368 369 491 492 493 494 495 496

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to carry out the responsibility of exercising a choice over how to carry out the following task activities by choosing the appropriate option regarding what to do, what to use, or how to do the activities as appropriate to the instances of the tasks as they present themselves, and within the guidelines provided for making the choice. The tasks or activities in which this skill must be exercised are as follows:

1. Deciding on accessory equipment, technical factors, shielding, and immobilization equipment appropriate for patient's age, sex, size, condition,and the examination ordered; deciding whether to order isolation procedures (all tasks listed above).
2. Deciding whether to bring to attention of supervisor or radiologist missing or inadequate information,or possible contraindications,or ask staff about limitations on patient's mobility--in "plain film" procedures where radiologist is not generally present (all tasks listed above except Task 369).
3. Deciding whether any exposures can be eliminated, whether patient can be examined in the standard positions called for,or whether to substitute alternative positions to achieve the same projections and accomplish the purpose of the examination (all tasks listed above except Task 369).
4. Deciding whether to provide emergency care or call patient's condition to attention of physician (all tasks listed above except task 369).
5. Deciding what mobile diagnostic x-ray unit is most appropriate, taking account of examination ordered, exposure technique, flexibility needs in positioning, line voltage available; deciding where to place equipment at patient's bedside (Task 369).

To accomplish appropriate decision making on methods the student must be able to indicate the variety of situations likely to occur which would require making the choices, must be able to specify the choices available, and must be able to state what appropriate guidelines there are in order to accomplish the tasks successfully. The student should be able to list the choices, their indications for use and their contraindications, and must be able to provide justifications for the choices.

Cross Reference Footnotes: See The Following Curriculum Objectives:

Lower scale value appears in: 71 72 73 74 75 76 77 78 79 80 81 82.

Same scale value appears in: 83 84 and level 4.

Higher scale value appears in: 86 and level 5.

CURRICULUM OBJECTIVE SHEET Page 1 of 1

Type of Objective Skill Factor IV No. 86
Skill or Knowledge Category Decision Making on Methods Scale Value 7.0
Occupation Patient Care Technician Level 2
Refers to Task Code No(s).: 296

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to carry out the responsibility of exercising a choice over how to carry out the following task activities by choosing the appropriate option regarding what to do, what to use, or how to do the activities as appropriate to the instances of the tasks as they present themselves, and within the guidelines provided for making the choice. The tasks or activities in which this skill must be exercised are as follows:

1. Deciding what procedures to carry out in providing first aid or emergency care to patient based on own examination of patient to determine the nature and severity of symptoms (Task 296).

To accomplish appropriate decision making on methods the student must be able to indicate the variety of situations likely to occur which would require making the choices, must be able to specify the choices available, and must be able to state what appropriate guidelines there are in order to accomplish the tasks successfully. The student should be able to list the choices, their indications for use and their contraindications, and must be able to provide justifications for the choices.

Cross Reference Footnotes: See The Following Curriculum Objectives:
Lower scale value appears in: 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85.
Same scale value appears in level 4 of patient care and level 5.

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Type of Objective Skill Factor IV No. 87

Skill or Knowledge Category Decision Making on Quality Scale Value 1.5

Occupation Patient Care Aide Level 1

Refers to Task Code No(s).: 153

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to carry out the responsibility of exercising control over the quality of his or her task performance in the area of latitude provided between minimum standards and the highest possible quality that can be achieved. Activities in which this skill must be exercised are as follows:

1. Taking care to attend to patient's comfort while assisting physician or co-worker in special examination or treatment procedure (Task 153).

To accomplish appropriate decision making on quality the student must be able to indicate the miminum standards for acceptable performance of the task or for the outputs of the task, must be able to indicate what latitude above the minimum standards is available to the performer to improve the quality, and must be able to indicate what priorities should be used to exercise judgment on when and where to exceed minimum standards of quality.

Cross Reference Footnotes: See The Following Curriculum Objectives:
Same scale value appears in: 88.
Higher scale value appears in: 89 90 91 92 93 94 95 96 97 98 99 100 101 102 103 104 105.

CURRICULUM OBJECTIVE SHEET Page 1 of 1

Type of Objective Skill Factor IV No. 88

Skill or Knowledge Category Decision Making on Quality Scale Value 1.5

Occupation Patient Care Technician Level 2

Refers to Task Code No(s).: 198

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to carry out the responsibility of exercising control over the quality of his or her task performance in the area of latitide provided between minimum standards and the highest possible quality that can be achieved. Activities in which this skill must be exercised are as follows:

1. Taking care to measure out medication to be administered orally (when quantity will be checked) (Task 198).

To accomplish appropriate decision making on quality the student must be able to indicate the minimum standards for acceptable performance of the task or for the outputs of the task, must be able to indicate what latitude above the minimum standards is available to the performer to improve the quality, and must be able to indicate what priorities should be used to exercise judgment on when and where to exceed minimum standards of quality.

Cross Reference Footnotes: See The Following Curriculum Objectives:
Same scale value appears in: 87.
Higher scale value appears in: 89 90 91 92 93 94 95 96 97 98 99 100 101 102 103 104 105.

CURRICULUM OBJECTIVE SHEET Page 1 of 1

Type of Objective Skill Factor IV No. 89
Skill or Knowledge Category Decision Making on Quality Scale Value 2.0
Occupation Patient Care Aide Level 1
Refers to Task Code No(s).: 193 199

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to carry out the responsibility of exercising control over the quality of his or her task performance in the area of latitude provided between minimum standards and the highest possible quality that can be achieved. Activities in which this skill must be exercised are as follows:

1. In readying patient for examination, taking care to position patient so that area to be exposed is accessible (Task 193).
2. In evaluating vital signs, taking care to note and report those that appear abnormal (Task 199).

To accomplish appropriate decision making on quality the student must be able to indicate the minimum standards for acceptable performance of the tasks or for the outputs of the tasks, must be able to indicate what latitude above the minimum standards is available to the performer to improve the quality, and must be able to indicate what priorities should be used to exercise judgment on when and where to exceed minimum standards of quality.

Cross Reference Footnotes: See The Following Curriculum Objectives:
Lower scale value appears in: 87 88.
Same scale value appears in: 90 91 92.
Higher scale value appears in: 93 94 95 96 97 98 99 100 101 102 103 104 105.

CURRICULUM OBJECTIVE SHEET Page 1 of 1

Type of Objective Skill Factor IV No. 90

Skill or Knowledge Category Decision Making on Quality Scale Value 2.0

Occupation Patient Care Technician Level 2

Refers to Task Code No(s).: 308

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to carry out the responsibility of exercising control over the quality of his or her task performance in the area of latitude provided between minimum standards and the highest possible quality that can be achieved. Activities in which this skill must be exercised are as follows:

1. In monitoring patient's ECG,taking care to note and report any known emergency signs or unusual readings (Task 308).

To accomplish appropriate decision making on quality the student must be able to indicate the minimum standards for acceptable performance of the task or for the outputs of the task, must be able to indicate what latitude above the minimum standards is available to the performer to improve the quality, and must be able to indicate what priorities should be used to exercise judgment on when and where to exceed minimum standards of quality.

Cross Reference Footnotes: See The Following Curriculum Objectives:

Lower scale value appears in: 87 88.

Same scale value appears in: 89 91 92.

Higher scale value appears in: 93 94 95 96 97 98 99 100 101 102 103 104 105.

CURRICULUM OBJECTIVE SHEET Page 1 of 1

Type of Objective Skill Factor VI No. 91

Skill or Knowledge Category Decision Making on Quality Scale Value 2.0

Occupation Quality Assurance Aide Level 1

Refers to Task Code No(s).: 275 297

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to carry out the responsibility of exercising control over the quality of his or her task performance in the area of latitude provided between minimum standards and the highest possible quality that can be achieved. Activities in which this skill must be exercised are as follows:

1. In preparing subtraction prints, taking care during the various stages to evaluate the output using own high standards of quality (Task 275).

2. In obtaining computer control card for serial cassette changer, taking care to check that card is not mutilated (Task 297).

To accomplish appropriate decision making on quality the student must be able to indicate the minimum standards for acceptable performance of the tasks or for the outputs of the tasks, must be able to indicate what latitude above the minimum standards is available to the performer to improve the quality, and must be able to indicate what priorities should be used to exercise judgment on when and where to exceed minimum standards of quality.

Cross Reference Footnotes: See The Following Curriculum Objectives:
Lower scale value appears in: 87 88.
Same scale value appears in: 89 90 92.
Higher scale value appears in: 93 94 95 96 97 98 99 100 101 102 103 104 105.

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Type of Objective Skill Factor III No. 92
Skill or Knowledge Category Decision Making on Quality Scale Value 2.0
Occupation Radiologic Technologist Level 3
Refers to Task Code No(s).: 464

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to carry out the responsibility of exercising control over the quality of his or her task performance in the area of latitude provided between minimum standards and the highest possible quality that can be achieved. Activities in which this skill must be exercised are as follows:

1. In providing technical assistance for a fluoroscopic examination of a patient, taking care to preselect appropriate technical factors for spot filming and TV brightness controls for preliminary viewing; being careful to tell physician about any apparent contraindications to examination based on review of requisition sheet (Task 464).

To accomplish appropriate decision making on quality the student must be able to indicate the minimum standards for acceptable performance of the task or for the outputs of the task, must be able to indicate what latitude above the minimum standards is available to the performer to improve the quality, and must be able to indicate what priorities should be used to exercise judgment on when and where to exceed minimum standards of quality.

Cross Reference Footnotes: See The Following Curriculum Objectives:
Lower scale value appears in: 87 88.
Same scale value appears in: 89 90 91.
Higher scale value appears in: 93 94 95 96 97 98 99 100 101.

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Type of Objective Skill Factor IV No. 93

Skill or Knowledge Category Decision Making on Quality Scale Value 3.5

Occupation Patient Care Aide Level 1

Refers to Task Code No(s).: 166 262 278 281 282 283 290 291 292 302 303 490 520 521

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to carry out the responsibility of exercising control over the quality of his or her task performance in the area of latitude provided between minimum standards and the highest possible quality that can be acheived. Activities in which this skill must be exercised are as follows:

1. In using isolation and decontamination techniques to prepare an examination or treatment room or area and/or clean up afterwards, taking care to be thorough in disposing of contaminated materials and in following personal isolation technique (Task 166).

2. In taking an ECG of any patient, taking care to properly standardize machine beforehand (Task 262).

3. In requesting no recurrence in the future of nonappearance of patients for examinations or treatment, taking care to speak to supervisor in a manner to elicit cooperation (Task 278).

4. In attaching cards to patients' garments indicating special conditions requiring isolation technique or other special care, taking care to be sure co-workers are aware, such as notifying them personally in addition to attaching cards to patients (Task 281).

5. In escorting adult patient to and/or from dressing rooms, treatment rooms, and/or waiting areas, taking care to note whether patient needs assistance in undressing, and providing assistance to patient (Task 282).

6. In reinforcing wet dressing or applying dry dressing, taking care to apply neatly and for least painful later removal (Task 283).

7. In changing a patient's colostomy bag, taking care to be thorough in cleansing stoma and other soiled parts of patient's body (Task 290).

8. In taking a non-pediatric patient's temperature with an oral thermometer, taking care that thermometer is correctly placed and held in patient's mouth (Task 291).

9. In examining appearance of fresh stool or urine specimen, taking care to determine what to report to the staff member who asked for evaluation of appearance of specimen (Tasks 292, 303).

CURRICULUM OBJECTIVE SHEET (continued) Page 2 of 2

Type of Objective Skill Factor IV No. 93

Skill or Knowledge Cagegory Decision Making on Quality Scale Value 3.5

Content Continued

10. In placing or making a call for a patient, taking care to determine, deliver, and/or relay message accurately (Task 302).

11. In mummying or wrapping a pediatric patient, making sure that restraint is snug, not too tight, and that limbs are in proper alignment without discomfort to patient (Task 490).

12. In preparing a patient and attaching electrodes for ECG monitoring, being careful to ask for additional information if orders are not clear (Task 520).

13. In applying digital or manual pressure to a patient's puncture site, taking care in instructing patient on how to handle renewed bleeding after performer leaves (Task 521).

To accomplish appropriate decision making on quality the student must be able to indicate the minimum standards for acceptable performance of the tasks or for the outputs of the tasks, must be able to indicate what latitude above the minimum standards is available to the performer to improve the quality, and must be able to indicate what priorities should be used to exercise judgment on when and where to exceed minimum standards of quality.

Cross Reference Footnotes: See The Following Curriculum Objectives:
Lower scale value appears in: 87 88 89 90 91 92.
Same scale value appears in: 94 95 96 97 98.
Higher scale value appears in: 99 100 101 102 103 104 105.

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Type of Objective Skill Factor IV No. 94

Skill or Knowledge Category Decision Making on Quality Scale Value 3.5

Occupation Patient Care Technician Level 2

Refers to Task Code No(s).: 18 33 65 280 298 522

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to carry out the responsibility of exercising control over the quality of his or her task performance in the area of latitude provided between minimum standards and the highest possible quality that can be achieved. Activities in which this skill must be exercised are as follows:

1. In drawing blood from a non-pediatric patient's vein, being careful to select the appropriate vein, puncture properly, or ask for help if performer has difficulty in finding the vein (Task 18).

2. In removing a patient's sutures, taking care to examine the sutured area and note the condition and healing; deciding to irrigate or have antibiotics prescribed when appropriate (Task 33).

3. In preparing specimens for the laboratory, taking care in handling when picking out tissue fragments or dealing with bronchial washings (Task 65).

4. In participating in monitoring of personal exposure to radiation, being alert to possible accidental or excessive personal exposure; notifying designated staff member (Task 280).

5. In administering medication orally to any patient without prior check by physician, taking care to measure carefully and check for any signs of deterioration prior to administering (Task 298).

6. In applying a pressure dressing to a puncture site, taking care to note whether wound shows appearance of problem such as lack of pulse, hematoma, swelling; reporting this at once (Task 522).

To accomplish appropriate decision making on quality the student must be able to indicate the minimum standards for acceptable performance of the tasks or for the outputs of the tasks, must be able to indicate what latitude above the minimum standards is available to the performer to improve the quality, and must be able to indicate what priorities should be used to exercise judgment on when and where to exceed minimum standards of quality.

Cross Reference Footnotes: See The Following Curriculum Objectives:

Lower scale value appears in: 87 88 89 90 91 92.

Same scale value appears in: 93 95 96 97 98.

Higher scale value appears in: 99 100 101 102 103 104 105.

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Type of Objective Skill

Factor VI

No. 95

Skill or Knowledge Category Decision Making on Quality

Scale Value 3.5

Occupation Quality Assurance Aide

Level 1

Refers to Task Code No(s).: 8 70 71 72 80 95 134 135 147 167 192 223 227 260 269 273 284 286 304 319 354 551 552

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to carry out the responsibility of exercising control over the quality of his or her task performance in the area of latitude provided between minimum standards and the highest possible quality that can be achieved. Activities in which this skill must be exercised are as follows:

1. In shutting down computerized transverse axial tomography equipment, taking care to note whether there are any problems with equipment (Task 8).

2. In readying x-ray film hand or automatic processing equipment for use, taking care to check for signs of contamination, dirt, or exhaustion of developer and fixer solutions and water bath (Tasks 70, 273).

3. In processing x-ray films manually, taking care to agitate films to loosen air bubbles (Task 71).

4. In loading or processing x-ray films, taking care to handle films to avoid creating artifacts (Tasks 71, 72, 269, 551, 552).

5. In preparing procedure trays, checking for emergency supplies, or readying emergency cart, taking care to check the condition of equipment and medications (Tasks 80, 227, 304).

6. In testing urine sample using tablet method, taking care to measure out exact amount of drops of water and urine (Task 95).

7. In recording information for record keeping, billing, or instruction, taking care to obtain all missing information and make any relevant special notations (Task 134).

8. In cleaning an examination or treatment room after use, taking extra care to clean up any items or areas that may have been contaminated (Task 135).

9. In preparing or changing a technique chart for a specific x-ray machine, taking care to make a new chart if the existing one is worn or has many changes on it; taking care to make sure all appropriate staff are aware of changes (Task 147).

10. In inspecting and cleaning intensifying screens in x-ray film cassettes, taking care to separate all those that require cleaning from those that should be replaced (Task 167).

CURRICULUM OBJECTIVE SHEET (continued) Page 2 of 2

Type of Objective Skill Factor VI No. 95

Skill or Knowledge Cagegory Decision Making on Quality Scale Value 3.5

Content Continued

11. In preparing xeroradiography equipment for use, being careful to note any problems with quality of test xeroradiograph (Task 192).

12. In making unoccupied bed or stretcher bed, taking care to have bed neat and bedding properly tucked in and smooth (Task 223).

13. In preparing syringe with medication to be injected, checking expiration date,any signs of deterioration (Tasks 80, 227, 260, 304).

14. In checking oxygen or suction equipment, deciding to clean if there is any possibility that equipment may need it (Tasks 284).

15. In folding and storing linens, taking care to do this neatly (Task 286).

16. In applying print coater to photographs, taking care in handling and stacking prints so as not to mar (Task 319).

17. In obtaining patient records for use in procedure or conference, taking care to check for and/or obtain all relevant records (Task 354).

To accomplish appropriate decision making on quality the student must be able to indicate the minimum standards for acceptable performance of the tasks or for the outputs of the tasks, must be able to indicate what latitude above the minimum standards is available to the performer to improve the quality, and must be able to indicate what priorities should be used to exercise judgment on when and where to exceed minimum standards of quality.

Cross Reference Footnotes: See The Following Curriculum Objectives:

Lower scale value appears in: 87 88 89 90 91 92.

Same scale value appears in: 93 94 96 97 98.

Higher scale value appears in: 99 100 101 102 103 104 105.

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Type of Objective Skill Factor VI No. 96

Skill or Knowledge Category Decision Making on Quality Scale Value 3.5

Occupation Quality Assurance Technician Level 2

Refers to Task Code No(s).: 78 173 175 178 187 276 280 523 524 534 536 538 554

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to carry out the responsibility of exercising control over the quality of his or her task performance in the area of latitude provided between minimum standards and the highest possible quality that can be achieved. Activities in which this skill must be exercised are as follows:

1. In jacketing patient's radiographs and other diagnostic information, taking care to check for and obtain all missing information (Task 78).

2. In checking x-ray machine timers with spinning top test, taking care to assess test films properly and note any problems of timer accuracy or other problems independent of timer accuracy (Task 173).

3. In carrying out penetrometer check of x-ray machine calibration, taking care to assess results of test (Task 175).

4. In checking, preparing fluoroscope controls or inspecting diagnostic radiography system visually and manually, taking care to note any problems (Tasks 178, 536).

5. In checking film-screen contact in x-ray cassettes, taking care to evaluate test films (Task 187).

6. In making minor adjustments or repair of automatic film processor, taking care to locate source of problems, handle parts with care when making adjustments (Task 276).

7. In participating in monitoring of personal exposure to radiation, being alert to possible accidental or excessive personal exposure; notifying designated staff member (Task 280).

8. In preparing computerized transverse axial tomography equipment for use, taking care to note whether there are any problems with equipment (Task 523).

9. In providing preventive maintenance for computerized transverse axial tomography equipment, making sure that no unauthorized persons are in room; taking care to note condition of equipment (Task 524).

10. In inspecting shielding devices and garments, being careful to discard or replace items that do not appear to meet test standards (Task 534).

CURRICULUM OBJECTIVE SHEET (continued) Page 2 of 2

Type of Objective Skill Factor VI No. 96
Skill or Knowledge Cagegory Decision Making on Quality Scale Value 3.5

Content Continued

11. In testing adequacy of diagnostic x-ray equipment filtration, taking care to assess test results and decide what to do (Task 538).

12. In entering, evaluating occupational radiation exposure data, taking care to review radiation protection standards; taking care to word letters or reports to accurately reflect the situation (Task 554).

To accomplish appropriate decision making on quality the student must be able to indicate the minimum standards for acceptable performance of the tasks or for the outputs of the tasks, must be able to indicate what latitude above the minimum standards is available to the performer to improve the quality, and must be able to indicate what priorities should be used to exercise judgment on when and where to exceed minimum standards of quality.

Cross Reference Footnotes: See The Following Curriculum Objectives:
Lower scale value appears in: 87 88 89 90 91 92.
Same scale value appears in: 93 94 95 97 98.
Higher scale value appears in: 99 100 101 102 103 104 105.

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Type of Objective Skill Factor III No. 97
Skill or Knowledge Category Decision Making on Quality Scale Value 3.5
Occupation Radiologic Technologist Level 3
Refers to Task Code No(s).: 280 369

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to carry out the responsiblity of exercising control over the quality of his or her task performance in the area of latitude provided between minimum standards and the highest possible quality that can be achieved. Activities in which this skill must be exercised are as follows:

1. In participating in monitoring of personal exposure to radiation, being alert to possible accidental or excessive personal exposure; notifying designated staff member (Task 280).
2. In selecting and positioning mobile x-ray equipment for bedside use, taking care to consider the exposure technique, the likely flexibility needed in positioning patient, and the line voltage available in the patient's location (Task 369).

To accomplish appropriate decision making on quality the student must be able to indicate the minimum standards for acceptable performance of the tasks or for the outputs of the tasks, must be able to indicate what latitude above the minimum standards is available to the performer to improve the quality, and must be able to indicate what priorities should be used to exercise judgment on when and where to exceed minimum standards of quality.

Cross Reference Footnotes: See The Following Curriculum Objectives:
Lower scale value appears in: 87 88 89 90 91 92.
Same scale value appears in: 93 94 95 96 98.
Higher scale value appears in: 99 100 101 102 103 104 105.

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Type of Objective Skill Factor A No. 98
Skill or Knowledge Category Decision Making on Quality Scale Value 3.5
Occupation Administrative Technologist Level 3
Refers to Task Code No(s).: 76 128 129 131 132 165 277 294

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to carry out the responsibility of exercising control over the quality of his or her task performance in the area of latitude provided between minimum standards and the highest possible quality that can be achieved. Activities in which this skill must be exercised are as follows:

1. In checking supplies and ordering, taking care to get complete information on requests, using judgment on amounts to order (Tasks 76, 129).

2. In checking supply of narcotics or regulated drugs, taking care to investigate discrepancies in inventory (Task 128).

3. In scheduling staff or patients, taking care to consider all the relevant circumstances as appropriate (Tasks 131, 277).

4. In assessing need to request services, replacement, or repair of equipment, taking care to obtain all necessary information (Task 132).

5. In deciding if employee's lateness, absenteeism, or use of lunch and break times is excessive, being careful in making assessment (Task 165).

6. In assigning task to staff member, taking care to be sure individual understands what is needed (Task 294).

To accomplish appropriate decision making on quality the student must be able to indicate the minimum standards for acceptable performance of the tasks or for the outputs of the tasks, must be able to indicate what latitude above the minimum standards is available to the performer to improve the quality, and must be able to indicate what priorities should be used to exercise judgment on when and where to exceed minimum standards of quality.

Cross Reference Footnotes: See The Following Curriculum Objectives:
Lower scale value appears in: 87 88 89 90 91 92.
Same scale value appears in: 93 94 95 96 97.
Higher scale value appears in: 99 100 101 102 103 104 105.

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Type of Objective Skill Factor III No. 99

Skill or Knowledge Category Decision Making on Quality Scale Value 5.5

Occupation Radiologic Technologist Level 3

Refers to Task Code No(s).: 355 356 357 358 359 360 361 362 363 364 365 366 367 368 370 371 372 373 374 375 376 377 378 379 380 381 382 383 384 385 386 387 388 389 390 463 465 466 467 468 491 492 493 494 495 496 497 498 499 (*continued below)

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to carry out the responsibility of exercising control over the quality of his or her task performance in the area of latitude provided between minimum standards and the highest possible quality that can be achieved. Activities in which this skill must be exercised are as follows:

1. In taking radiographs of patients, taking care to review requisition and patient information for possible insufficiency of information, contraindications, or anything else that should be brought to attention of radiologist (all tasks listed).

2. In taking radiographs of patients, taking care to check on materials and equipment and set up before having patient enter examination room; checking contrast media for chemical deterioration (all tasks as appropriate).

3. In taking radiographs of patients, taking care to treat patients with dignity and concern; informing patient of what will happen; reassuring; answering questions (all tasks listed).

4. In taking radiographs of patient, taking care to measure patient with calipers to select appropriate technical factors; selecting minimum exposure compatible with diagnostic quality (all tasks listed).

5. In taking radiographs of patient, taking care to adjust technical factors for special considerations of patient's size, condition, the use of magnification, or posted changes (all tasks listed).

6. In taking radiographs of patients, taking care not to move patient in any way that might be harmful, painful, or needlessly uncomfortable; selecting alternative position if appropriate (all tasks listed).

7. In taking radiographs of patient, taking care to select and apply immobilization devices to prevent patient movement but not interfere with breathing and circulation (all tasks listed).

8. In taking radiographs of patient, taking care to handle IV drip, oxygen supply or catheters with care; assisting patient; being alert to any signs of pain, adverse reaction to procedure, contrast medium; taking care not to leave patient unattended or liable to fall off table (all tasks as appropriate).

CURRICULUM OBJECTIVE SHEET (continued) Page 2 of 2

Type of Objective Skill Factor III No. 99

Skill or Knowledge Cagegory Decision Making on Quality Scale Value 5.5

Content Continued

9. In taking radiographs of patient, taking care to supply shielding to patient's gonads and radiosensitive areas; supplying shielding to any staff who will be present during exposure (all tasks as appropriate).

10. In taking radiographs of patients, collimating to the area of interest (all tasks listed).

11. In taking radiographs of patients, making note of radiologist's density preferences or equipment problems to avoid need to redo examinations (all tasks listed).

12. In taking radiographs of patients, making sure that any "retakes" ordered are for medical-diagnostic purposes (all tasks listed).

13. In taking radiographs of patients, taking care to note any problems with equipment and report (all tasks listed).

To accomplish appropriate decision making on quality the student must be able to indicate the minimum standards for acceptable performance of the tasks or for the outputs of the tasks, must be able to indicate what latitude above the minimum standards is available to the performer to improve the quality, and must be able to indicate what priorities should be used to exercise judgment on when and where to exceed minimum standards of quality.

Cross Reference Footnotes: See The Following Curriculum Objectives:
Lower scale value appears in: 87 88 89 90 91 92 93 94 95 96 97 98.
Same scale value appears in: 100.
Higher scale value appears in: 101 102 103 104 105.

* 500 501 502 503 504 505 506 507 508 509 510 511 512 513 514 515 516 517 518 519 526.

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Type of Objective Skill Factor A No. 100

Skill or Knowledge Category Decision Making on Quality Scale Value 5.5

Occupation Administrative Technologist Level 3

Refers to Task Code No(s).: 293

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to carry out the responsibility of exercising control over the quality of his or her task performance in the area of latitude provided between minimum standards and the highest possible quality that can be achieved. Activities in which this skill must be exercised are as follows:

1. In attending a private meeting with supervisor, taking care and responsibility in entering fully into discussion of problems raised by supervisor or raising own problems and participating in discussion about what to do (Task 293).

To accomplish appropriate decision making on quality the student must be able to indicate the minimum standards for acceptable performance of the task or for the outputs of the task, must be able to indicate what latitude above the minimum standards is available to the performer to improve the quality, and must be able to indicate what priorities should be used to exercise judgment on when and where to exceed minimum standards of quality.

Cross Reference Footnotes: See The Following Curriculum Objectives:
Lower scale value appears in: 87 88 89 90 91 92 93 94 95 96 97 98.
Same scale value appears in: 99.
Higher scale value appears in: 101 102 103 104 105.

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Type of Objective Skill Factor IV No. 101

Skill or Knowledge Category Decision Making on Quality Scale Value 7.0

Occupation Patient Care Aide Level 1

Refers to Task Code No(s).: 73 74 113 138 190 287 289 295 301

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to carry out the responsibility of exercising control over the quality of his or her task performance in the area of latitude provided between minimum standards and the highest possible quality that can be achieved. Activities in which this skill must be exercised are as follows:

1. In reassuring a patient or family member,or explaining about diagnostic radiography procedures,or explaining procedures to follow at home prior to coming for examination, making sure that the individual understands what is being said or is reassured (Tasks 73, 74, 113).

2. Being alert to notice any symptoms or asking about any concerns manifested by patient that should be brought to the attention of physician or staff, and being careful to report accurately (Task 138).

3. In assisting patient,being careful to handle patient properly and safely so as not to harm patient (Task 190).

4. In feeding patient, taking care to assist patient as appropriate to patient's condition and needs (Tasks 287, 289).

5. In participating in meeting of nursing personnel in x-ray department, taking responsibility for raising issues and problems; expressing opinions, and being actively involved in the progress of the meeting (Task 295).

6. In diapering a baby, being careful to clean and dry patient thoroughly (Task 301).

To accomplish appropriate decision making on quality the student must be able to indicate the minimum standards for acceptable performance of the tasks or for the outputs of the tasks, must be able to indicate what latitude above the minimum standards is available to the performer to improve the quality, and must be able to indicate what priorities should be used to exercise judgment on when and where to exceed minimum standards of quality.

Cross Reference Footnotes: See The Following Curriculum Objectives:
Lower scale value appears in: 87 88 89 90 91 92 93 94 95 96 97 98 99 100.
Same scale value appears: 102 103 104 105.

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Type of Objective Skill Factor IV No. 102

Skill or Knowledge Category Decision Making on Quality Scale Value 7.0

Occupation Patient Care Technician Level 2

Refers to Task Code No(s).: 133 143 156 181 182 185 243 296 299

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to carry out the responsibility of exercising control over the quality of his or her task performance in the area of latitude provided between minimum standards and the highest possible quality that can be achieved. Activities in which this skill must be exercised are as follows:

1. In administering a subcutaneous or intramuscular injection, taking care to explain name and purpose of medication and possible side effects, to check patient allergy, and to consider whether there are contraindications in regard to use or dosage; taking care to select appropriate site of injection (Tasks 133, 299).

2. In catheterizing a patient's urethra, taking care to reassure patient, follow sterile technique, cleanse patient, insert gently, and terminate if there is severe pain or if resistance is encountered to passage of catheter (Tasks 143, 181).

3. In irrigating or dressing a wound, burn, or opening for catheter, taking care to assess healing and conditions of wound before proceeding; using proper medications and materials (Task 156).

4. In setting up and using suction machine, taking care to reassure patient and explain; being careful in using suction; continuing until passage is cleared (Task 182).

5. In administering oxygen to patient, being careful to assess patient's response, determine when to administer and when to remove oxygen; reassuring patient (Task 185).

6. In restraining patient, being careful to reassure and calm patient in addition to using restraints (Task 243).

7. In providing first aid to patient, acting carefully, quickly, calmly, and accurately to assess condition, decide on and carry out care (Task 296).

To accomplish appropriate decision making on quality the student must be able to indicate the minimum standards for acceptable performance of the tasks or for the outputs of the tasks, must be able to indicate what latitude above the minimum standards is available to the performer to improve the quality, and must be able to indicate what priorities should be used to exercise judgment on when and where to exceed minimum standards of quality.

Cross Reference Footnotes: See The Following Curriculum Objectives:

Lower scale value appears in: 87 88 89 90 91 92 93 94 95 96 97 98 99 100.

Same scale value appears in: 101 103 104 105 and level 4 of patient care.

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Type of Objective Skill Factor VI No. 103

Skill or Knowledge Category Decision Making on Quality Scale Value 7.0

Occupation Quality Assurance Technician Level 2

Refers to Task Code No(s).: 525 527 529 530 531 532 533 535 537 539 540 543 544 545 548 549 550 553 556

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to carry out the responsibility of exercising control over the quality of his or her task performance in the area of latitude provided between minimum standards and the highest possible quality that can be achieved. Activities in which this skill must be exercised are as follows:

1. In checking calibration of computerized transverse axial tomography equipment, taking care to select appropriate test procedure, carry out check carefully, assess results, and make adjustments (Task 525).

2. In retrieving, displaying and copying computerized transverse axial scans, being careful to select appropriate display controls to provide diagnostic information; selecting and photographing sufficient displays using all appropriate display options (Task 527).

3. In testing x-ray equipment, or film, or film processors, or calibrating quality assurance test instruments, being careful to select appropriate test procedures for the equipment involved, carry out each test step carefully, record results accurately, assess results conscientiously, and discuss results with supervisor and/or radiologist in charge so as to assure that patient exposure is minimized, diagnostic reliability is provided, and legal requirements are met (Task 529, 530, 531, 532, 533, 535, 537, 539, 540, 543, 544, 548, 549, 556).

4. In monitoring patient exposure rates for routine diagnostic x-ray procedures, carrying out procedures carefully and accurately; recommending how to use gonadal shielding; helping to use results to make it possible to record cumulative patient exposure (Task 545).

5. In conducting radiation protection survey, carrying out procedures carefully and accurately; evaluating results conscientiously; using results to suggest the safest positions in room for personnel who must remain during exposure; suggesting corrective measures (Task 550).

6. In processing thermoluminescent or film personnel monitoring dosimeters, following procedures carefully, choosing appropriate steps; noting unusually high exposure readings and bringing to attention of appropriate supervisor (Task 553).

CURRICULUM OBJECTIVE SHEET (continued) Page 2 of 2

Type of Objective Skill Factor VI No. 103

Skill or Knowledge Cagegory Decision Making on Quality Scale Value 7.0

Content Continued

To accomplish appropriate decision making on quality the student must be able to indicate the minimum standards for acceptable performance of the tasks or for the outputs of the tasks, must be able to indicate what latitude above the minimum standards is available to the performer to improve the quality, and must be able to indicate what priorities should be used to exercise judgment on when and where to exceed minimum standards of quality.

Cross Reference Footnotes: See The Following Curriculum Objectives:
Lower scale value appears in: 87 88 89 90 91 92 93 94 95 96 97 98 99 100.
Same scale value appears in: 101 102 104 105 and levels 4 and 5.

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Type of Objective Skill Factor III No. 104

Skill or Knowledge Category Decision Making on Quality Scale Value 7.0

Occupation Radiologic Technologist Level 3

Refers to Task Code No(s).: 81 353

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to carry out the responsibility of exercising control over the quality of his or her task performance in the area of latitude provided between minimum standards and the highest possible quality that can be achieved. Activities in which this skill must be exercised are as follows:

1. In assessing the technical quality of "plain film" radiographs, being careful to take account of the purpose and type of study, appropriate diagnostic standards, evidence of proper collimation and use of shielding; being careful to order retakes only if medically warranted; explaining problems carefully so as to instruct technologist whose work is being reviewed (Task 81).
2. In participating in meeting of technologists in x-ray department, taking responsibility for raising issues and problems; expressing opinions and being actively involved in the progress of the meeting (Task 353).

To accomplish appropriate decision making on quality the student must be able to indicate the minimum standards for acceptable performance of the tasks or for the outputs of the tasks, must be able to indicate what latitude above the minimum standards is available to the performer to improve the quality, and must be able to indicate what priorities should be used to exercise judgment on when and where to exceed minimum standards of quality.

Cross Reference Footnotes: See The Following Curriculum Objectives:

Lower scale value appears in: 87 88 89 90 91 92 93 94 95 96 97 98 99 100.

Same scale value appears in: 101 102 103 105 and levels 4 and 5.

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Type of Objective Skill Factor A No. 105

Skill or Knowledge Category Decision Making on Quality Scale Value 7.0

Occupation Administrative Technologist Level 3

Refers to Task Code No(s).: 186 272

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to carry out the responsibility of exercising control over the quality of his or her task performance in the area of latitude provided between minimum standards and the highest possible quality that can be achieved. Activities in which this skill must be exercised are as follows:

1. In orienting a new staff member, being careful to select all the information needed; presenting carefully and making sure new employee comprehends (Task 186).
2. In course of work after scheduling patient procedures, being careful to check on the appropriateness of the schedule on a given day to eliminate undue waiting time for patients or to avoid having idle examination rooms (Task 272).

To accomplish appropriate decision making on quality the student must be able to indicate the minimum standards for acceptable performance of the tasks or for the outputs of the tasks, must be able to indicate what latitude above the minimum standards is available to the performer to improve the quality, and must be able to indicate what priorities should be used to exercise judgment on when and where to exceed minimum standards of quality.

Cross Reference Footnotes: See The Following Curriculum Objectives:

Lower scale value appears in: 87 88 89 90 91 92 93 94 95 96 97 98 99 100.

Same scale value appears in: 101 102 103 104 and level 4.

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Type of Objective Skill Factor IV No. 106
Skill or Knowledge Category Figural Skills Scale Value 1.0
Occupation Patient Care Aide Level 1
Refers to Task Code No(s).: 262 271

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to mentally manipulate (with or without physically manipulating) the figural aspects of objects in terms of size, shape, form, density, arrangement in space, in static array or in motion, to achieve the predetermined figural standards or objectives of size, shape, form, density or arrangement in the following activities:

1. Standardizing ECG machine and checking that recording is of adequate quality; deciding when patient's reading looks irregular (Tasks 262, 271).

To accomplish this, the student must be able to state what figural standards must be achieved for each activity, and must be able to exercise the degree of figural mental precision necessary to achieve the standards.

Cross Reference Footnotes: See The Following Curriculum Objectives:
Same scale value appears in: 107 108 109.
Higher scale value appears in: 110 111 112.

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Type of Objective Skill Factor IV No. 107
Skill or Knowledge Category Figural Skills Scale Value 1.0
Occupation Patient Care Technician Level 2
Refers to Task Code No(s).: 308

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to mentally manipulate (with or without physically manipulating) the figural aspects of objects in terms of size, shape, form, density, arrangement in space, in static array or in motion, to achieve predetermined figural standards or objectives of size, shape, form, density or arrangement in the following activities:

1. Adjusting ECG visual display on oscilloscope screen so that tracings are centered and clear; including image of appropriate number of waves; standardizing machine and checking that recording is of adequate quality; deciding when ECG reading should be brought to physician's attention (Task 308).

To accomplish this, the student must be able to state what figural standards must be achieved for each activity, and must be able to exercise the degree of figural mental precision necessary to achieve the standards.

Cross Reference Footnotes: See The Following Curriculum Objectives:
Same scale value appears in: 106 108 109.
Higher scale value appears in: 110 111 112.

CURRICULUM OBJECTIVE SHEET Page 1 of 2

Type of Objective Skill Factor VI No. 108

Skill or Knowledge Category Figural Skills Scale Value 1.0

Occupation Quality Assurance Technician Level 2

Refers to Task Code No(s).: 78 175 524 527 529 530 531 532 533 534 535 536 538 539 540 544 548 549

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to mentally manipulate (with or without physically manipulating) the figural aspects of objects in terms of size, shape, form, density, arrangement in space, in static array or in motion, to achieve the predetermined figural standards or objectives of size, shape, form, density, or arrangement in the following activities:

1. Viewing processed radiographs or photographs and noting whether identification information is missing; adding missing information on appropriate part of radiograph or photograph (Task 78).

2. Evaluating and/or comparing densities on test films using test tools or penetrometers (Tasks 175, 540, 544).

3. Using forming template, marking out its shape on skirt of new headbag for computerized transverse axial scanner; placing headbag in approximate position to fit over fixing studs (Task 524).

4. Adjusting visual display on computerized transverse axial equipment to achieve diagnostic quality images by using controls for the white-gray-black scale or for color as available (Task 527).

5. Centering center of cassette, phantom, radiation detection device, beam attenuator, or other test object to x-ray beam by using light field indicator and cross-hair shadows for center of field; with cassettes, placing so that cassette and light field image sides are parallel (Tasks 529, 530, 531, 532, 533, 534, 538, 539, 540, 544, 548).

6. Determining the corners of an image recorded on film by locating points, drawing straight lines connecting points so that they intersect at right angles or define diagonals (Tasks 529, 530).

7. Adjusting oscilloscope display to obtain clear kVp waveform image with base line at bottom of scale and trace peak at top, with a complete waveform on horizontal scale; copying waveform display on graph paper (Task 535).

8. Using angle measures, protractor, T-square, and/or level to check accuracy of tube angle indicators and position scales of x-ray machine (Task 536).

9. Using carpenter's square to make manual check of grid alignment of film changer; in using test tool to check grid alignment, evaluating whether location of pin appears along centerline of grid (Task 539).

CURRICULUM OBJECTIVE SHEET (continued) Page 2 of 2

Type of Objective Skill **Factor** VI **No.** 108

Skill or Knowledge Cagegory Figural Skills **Scale Value** 1.0

Content Continued

10. Plotting film densities and examining characteristic curve (Task 544).

11. Noting location of light points during test of leakage radiation; planning exposure reading at every point; planning a series of exposures within a given plane; placing radiation detector in predetermined positions (Task 549).

To accomplish this, the student must be able to state what figural standards must be achieved for each activity, and must be able to exercise the degree of figural mental precision necessary to achieve the standards.

Cross Reference Footnotes: See The Following Curriculum Objectives:
Same scale value appears in: 106 107 109.
Higher scale value appears in: 110 111 112.

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Type of Objective Skill Factor III No. 109
Skill or Knowledge Category Figural Skills Scale Value 1.0
Occupation Radiologic Technologist Level 3
Refers to Task Code No(s).: 372

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to mentally manipulate (with or without physically manipulating) the figural aspects of objects in terms of size, shape, form, density, arrangement in space, in static array or in motion, to achieve the predetermined figural standards or objectives of size, shape, form, density, or arrangement in the following activities:

1. Positioning x-ray tube so that central ray will be at right angles to center of film or at angle indicated by surgeon; indicating where sterile shielding should be placed to protect tissues from the primary path of the x-ray beam (Task 372).

Cross Reference Footnotes: See The Following Curriculum Objectives:
Same scale value appears in: 106 107 108.
Higher scale value appears in: 110 111 112.

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Type of Objective Skill Factor VI No. 110
Skill or Knowledge Category Figural Skills Scale Value 3.5
Occupation Quality Assurance Technician Level 2
Refers to Task Code No(s).: 525 537 545 550

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to mentally manipulate (with or without physically manipulating) the figural aspects of objects in terms of size, shape, form, density, arrangement in space, in static array or in motion, to achieve the predetermined figural standards or objectives of size, shape, form, density, or arrangement in the following activities:

1. Using viewing controls to check that water appears properly on visual display in check of computerized transverse axial scanner; checking that shapes obtained are correct for settings selected; checking for similarity of paired scans, signs of misalignment, checking that white-to-gray-to-black steps are discernible as appropriate; checking centering of image on display (Task 525).

2. With tomography equipment, evaluating density variation on test films; checking for closure and overlaps in the case of multidirectional scans; using tape and plumb bob to check grid alignment; centering for radiographic check of grid alignment (Task 537).

3. Placing exposure detection devices in positions on phantom to simulate various parts of patient in order to monitor patient exposure rates (Task 545).

4. Planning or noting the beam directions to be used in survey, including direction of beam at primary barriers; planning and placing radiation detectors to measure scatter; positioning phantom, x-ray tube for test positions; drawing or using a floor plan of room showing test locations of target, controls, barriers, measurement points; preparing isodose curves using test results and floor plan (Task 550).

To accomplish this, the student must be able to state what figural standards must be achieved for each activity, and must be able to exercise the degree of figural mental precision necessary to achieve the standards.

Cross Reference Footnotes: See The Following Curriculum Objectives:
Lower scale value appears in: 106 107 108 109.
Same scale value appears in: 111.
Higher scale value appears in: 112 and level 5.

CURRICULUM OBJECTIVE SHEET

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Type of Objective Skill Factor III No. 111

Skill or Knowledge Category Figural Skills Scale Value 3.5

Occupation Radiologic Technologist Level 3

Refers to Task Code No(s).: 355 356 357 358 359 360 361 362 363 364 365 366 367 368 370 371 373 375 376 377 378 379 381 382 383 384 385 386 387 388 389 390 463 465 466 467 468 491 492 493 494 495 496 497 498 499 500 501 (*continued below)

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to mentally manipulate (with or without physically manipulating) the figural aspects of objects in terms of size, shape, form, density, arrangement in space, in static array or in motion, to achieve the predetermined figural standards or objectives of size, shape, form, density, or arrangement in the following activities:

1. Selecting appropriate size x-ray film based on size of patient, area of interest, use of magnification technique and number of projections to appear on film (all tasks listed as appropriate except 526).

2. In making several projections on one film, deciding how these will be positioned so that film need not be turned for viewing each image (Tasks 355, 356, 357, 358, 359, 360, 361, 365, 366, 367, 491, 492, 493, 494, 496).

3. Selecting alternative positioning to obtain requested view of area of interest (all tasks listed except 526).

4. Positioning x-ray film in holder, cassette, bucky, or cassette holder; positioning the patient so that the part of the body to be radiographed is in position in relation to the film; centering part using light system; keeping the long axis of the part parallel to the film; with bucky, centering patient to midline; with film in holder or cassette on table, centering film to part; with upright holder, adjusting height of holder to part and centering part to film; positioning x-ray tube so that primary beam will enter the area of interest at the appropriate angle to project the view desired; collimating using light system so as to expose only area of interest (all tasks listed except 526).

5. Marking or defining anatomical reference lines to position skull or body with proper rotation and angulation (all tasks as appropriate).

6. In viewing computerized transverse axial scan, using controls on viewing unit or subroutine to adjust display to provide the best diagnostic information; adjusting display to the density range and median density on gray and/or color scales as appropriate to the tissues in the area of interest and possible pathological condition (Task 526).

CURRICULUM OBJECTIVE SHEET (continued) Page 2 of 2

Type of Objective Skill Factor III No. 111

Skill or Knowledge Cagegory Figural Skills Scale Value 3.5

Content Continued

To accomplish this, the student must be able to state what figural standards must be achieved for each activity, and must be able to exercise the degree of figural mental precision necessary to achieve the standards.

Cross Reference Footnotes: See The Following Curriculum Objectives:
Lower scale value appears in: 106 107 108 109.
Same Scale value appears in: 110.
Higher scale value appears in: 112.

* 502 503 504 505 506 507 508 509 510 511 512 513 514 515 516 517 518 519 526.

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Type of Objective Skill

Factor III

No. 112

Skill or Knowledge Category Figural Skills

Scale Value 5.0

Occupation Radiologic Technologist

Level 3

Refers to Task Code No(s).: 81 374

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to mentally manipulate (with or without physically manipulating) the figural aspects of objects in terms of size, shape, form, density, arrangement in space, in static array or in motion, to achieve the predetermined figural standards or objectives of size, shape, form, density, or arrangement in the following activities:

1. In evaluating "plain film" radiographs, assessing whether the correct patient view and full area of interest is demonstrated, whether a needlessly large area is visible, whether appropriate shielding is evident; evaluating image to note artifacts, blurring, or distortion, judge whether there is adequate detail and definition, and adequate density and contrast to provide the diagnostic imaging required for the examination (Task 81).

2. In positioning patient for tomography, considering the travel of the central ray and selecting position to minimize exposure of sensitive portions of the body not being examined, or deciding on shielding (Task 374).

3. Localizing the level of a lesion for tomography by working with frontal and lateral projections; locating marked center of area using visible reference points; reproducing markings made on radiographs on patient's body; locating area of lesion on lateral view so that distance to table above and below lesion can be estimated; determining level of initial "cut" (Task 374).

To accomplish this, the student must be able to state what figural standards must be achieved for each activity, and must be able to exercise the degree of figural mental precision necessary to achieve the standards.

Cross Reference Footnotes: See The Following Curriculum Objectives:
Lower scale value appears in: 106 107 108 109 110 111.
Same scale value appears in levels 4 and 5.

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Type of Objective Skill Factor VI No. 113
Skill or Knowledge Category Symbolic Skills Scale Value 1.5
Occupation Quality Assurance Aide Level 1
Refers to Task Code No(s).: 134 147

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to mentally manipulate and/or use symbols which are part of an abstract, non-representational system of notation where the symbols stand for properties, relationships, or operations in the following activities:

1. Tallying totals using arithmetic manipulations and numerical symbols (Task 134).
2. Performing calculations appropriate to determine and list percentage changes;using arithmetic manipulations and numerical symbols (Task 147).

To accomplish this, the student must be able to indicate what each symbol represents, must be able to manipulate each as required, and be sufficiently accurate to meet the standards for the activities.

Cross Reference Footnotes: See The Following Curriculum Objectives:
Same scale value appears in: 114 115.

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Type of Objective Skill Factor VI No. 114

Skill or Knowledge Category Symbolic Skills Scale Value 1.5

Occupation Quality Assurance Technician Level 2

Refers to Task Code No(s).: 173 175 525 529 530 531 532 535 536 537 538 539 543 544 548 549 550 553 556

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to mentally manipulate and/or use symbols which are part of an abstract, non-representational system of notation where the symbols stand for properties, relationships, or operations in the following activities:

1. Solving for unknown quantities with ratio equations based on known quantities; using arithmetic manipulations and numerical and algebraic symbols (Tasks 173, 530, 531).
2. Calculating quantities or rates by adding, subtracting, multiplying, or dividing using arithmetic manipulations and numerical symbols (Tasks 173, 175, 531, 532, 536, 538, 544, 548, 549, 553, 556).
3. Comparing differences in numerical quantities and determining whether they fall within acceptable given limits using arithmetic manipulations and numerical symbols (all tasks except 173, 175).
4. Using formula for magnification to solve equations for unknown portions of the formula to determine lengths and distances using arithmetic manipulations and numerical and algebraic symbols (Tasks 529, 530).
5. Performing calculations to determine percentage changes or differences using arithmetic manipulations and numerical symbols (Tasks 529, 531, 539).
6. Calculating averages using arithmetic manipulations and numerical symbols (Tasks 532, 535, 543, 544, 549, 553).
7. Following known formula such as for coefficient of variation, coefficient of linearity using arithmetic manipulations and numerical and algebraic symbols (Task 535).

To accomplish this, the student must be able to indicate what each symbol represents, must be able to manipulate each as required, and be sufficiently accurate to meet the standards for the activities.

Cross Reference Footnotes: See The Following Curriculum Objectives:
Same scale value appears in: 113 115.
Higher scale value appears in level 5.

CURRICULUM OBJECTIVE SHEET Page 1 of 1

Type of Objective Skill Factor III No. 115

Skill or Knowledge Category Symbolic Skills Scale Value 1.5

Occupation Radiologic Technologist Level 3

Refers to Task Code No(s).: 335 356 357 358 359 360 361 362 363 364 365 366 367 368 370 371 372 373 374 375 376 377 378 379 380 381 382 383 384 385 386 387 388 389 390 463 464 465 466 467 468 491 492 493 494 495 496 497 498 (*continued below)

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to mentally manipulate and/or use symbols which are part of an abstract, non-representational system of notation where the symbols stand for properties, relationships, or operations in the following activities:

1. Using formula for magnification to solve equations for unknown portions (distances); using arithmetic manipulations and numerical and algebraic symbols (tasks where appropriate).

2. Using conversion charts or posted information to reconvert technical exposure factors to an equivalent output using arithmetic manipulations and numerical symbols (tasks where appropriate).

3. Calculating distances in order to localize lesion using arithmetic manipulations and numerical symbols (Task 374).

To accomplish this, the student must be able to indicate what each symbol represents, must be able to manipulate each as required, and be sufficiently accurate to meet the standards for the activities.

Cross Reference Footnotes: See The Following Curriculum Objectives:
Same scale value appears in: 113 114.
Higher scale value appears in level 5.

* 499 500 501 502 503 504 505 506 507 508 509 510 511 512 513 514 515 516 517 518 519.

CURRICULUM OBJECTIVE SHEET Page 1 of 1

Type of Objective Skill Factor IV No. 116

Skill or Knowledge Category Taxonomic Skills Scale Value 2.0

Occupation Patient Care Technician Level 2

Refers to Task Code No(s).: 296

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to consciously apply conceptual classifying or organizing principles to suit the needs of the following activity:

1. Determining the nature and severity of symptoms of patient who is to receive first aid of emergency care; deciding what first aid and/or emergency care to apply (Task 296).

To accomplish this, the student must be able to indicate what existing principles of classification or organization are appropriate to the situation of the task, and must indicate how they must be applied to suit the needs of the situation acceptably.

Cross Reference Footnotes: See The Following Curriculum Objectives:
Same scale value appears in: 117 118.

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Type of Objective Skill Factor VI No. 117
Skill or Knowledge Category Taxonomic Skills Scale Value 2.0
Occupation Quality Assurance Technician Level 2
Refers to Task Code No(s).: 523 543 550

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to consciously apply conceptual classifying or organizing principles to suit the needs of the following activities:

1. Determining what type of test to make of computerized transverse axial tomography equipment based on reported malfunction, problem found personally, or periodic testing schedule and type of equipment (Task 525).

2. Determining whether results of monitoring tests carried out on automatic x-ray film processors indicate malfunction of processing components, errors in temperature, or need to replenish processing chemicals (Task 543).

3. Selecting appropriate steps for a protection survey of stray radiation rates and/or primary and secondary barrier transmitted radiation rates depending on whether need relates to new facility, new piece of equipment, report of high personnel exposure rates, or periodic check; considering types of equipment, whether check of viewing system window is involved, whether there is request for isodose curves to show radiation field in examination room; in making report, selecting appropriate categories to include, such as equipment type, identification, modality tested, type of tests used, exposure factors, detection instrument, location for test, workload, use and occupancy factors, measured exposure levels, permissible dose equivalents (Task 550).

To accomplish this, the student must be able to indicate what existing principles of classification or organization are appropriate to the situations, of the tasks, and must indicate how they must be applied to suit the needs of the situations acceptably.

Cross Reference Footnotes: See The Following Curriculum Objectives:
Same scale value appears in: 116 118.
Higher scale value appears in level 5.

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Type of Objective Skill Factor III No. 118

Skill or Knowledge Category Taxonomic Skills Scale Value 2.0

Occupation Radiologic Technologist Level 3

Refers to Task Code No(s).: 81 355 356 357 358 359 360 361 362 363 364 365 366 367 368 369 370 371 372 373 374 375 376 377 378 379 380 381 382 383 384 385 386 387 388 389 390 463 464 465 466 467 468 491 492 493 494 495 496 (*continued below)

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to consciously apply conceptual classifying or organizing principles to suit the needs of the following activities:

1. In considering the quality of radiographs, noting appearances that seem medically suspicious, signs of pathological conditions (Task 81).
2. Considering what technologist should do to improve quality of radiographs, such as adjustment of technical factors, repositioning of patient, or making additional exposures (Task 81).
3. Determining from requisition sheet, patient's medical-technical chart, and/or staff the examination called for, the patient involved, special considerations, patient's condition; checking for possible contraindications; noting information that may affect how patient is to be handled or technical factors; noting or selecting equipment to be used; checking on completeness of information; determining what prior preparation was ordered; selecting appropriate steps (all tasks listed except Task 81).
4. Evaluating orders for patient positions and projections of the area of interest in relation to patient's condition; considering the need for a change from standard positions to accomplish the purpose of the examination and offer the least discomfort to patient (all tasks listed).
5. Considering patient's body type, size, sex, age or muscularity in determining correct technical factors and positioning (tasks listed as appropriate).
6. Observing patient throughout procedure and being alert for any signs of pain, emergency, adverse reaction to procedure or contrast medium, or impairment of respiration; noting any signs of malfunction of equipment (all tasks listed except Task 81).

To accomplish this, the student must be able to indicate what existing principles of classification or organization are appropriate to the situations of the tasks, and must indicate how they must be applied to suit the needs of the situations acceptably.

Cross Reference Footnotes: See The Following Curriculum Objectives:

Same scale value appears in: 116 117.

Higher scale value appears in level 5.

* 497 498 499 500 501 502 503 504 505 506 507 508 509 510 511 512 513 514 515 516 517 518 519 526.

CURRICULUM OBJECTIVE SHEET Page 1 of 1

Type of Objective Skill Factor IV No. 119
Skill or Knowledge Category Implicative Skills Scale Value 1.0
Occupation Patient Care Aide Level 1
Refers to Task Code No(s).: 262 271 283

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to come to conclusions, draw implications, or foresee consequences based on information in order to carry out the following activities:

1. Concluding whether patient is showing signs of emergency that should be brought to physician's attention (Tasks 262, 271).
2. Concluding whether ECG reading looks suspicious or irregular; deciding whether to inform appropriate staff person (Task 271).
3. Concluding whether condition of dressing requires attention of more senior staff member (Task 283).

To accomplish this, the student must be able to indicate the types of information from which he or she must draw in the various instances of the activity which may arise, and must be able to indicate what inferences, consequences, or conclusions are implied by various possible combinations of information as appropriate for the situations. The student should be able to defend the implications drawn using appropriate criteria.

Cross Reference Footnotes: See The Following Curriculum Objectives:
Same scale value appears in: 120 121 122 123.
Higher scale value appears in: 124 125 126 127 128.

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Type of Objective Skill Factor IV No. 120
Skill or Knowledge Category Implicative Skills Scale Value 1.0
Occupation Patient Care Technician Level 2
Refers to Task Code No(s).: 33 65 133 143 156 181 182 185 299 308

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to come to conclusions, draw implications, or foresee consequences based on information in order to carry out the following activities:

1. Concluding whether patient's wound or suture shows signs of infection; deciding what to do (Tasks 33, 156).
2. Concluding the likely number of separate specimens that will be prepared during procedure to take extravascular body fluid specimens, washings, cell and/or tissue bipsies (Task 65).
3. Concluding whether medication type or dosage ordered is inappropriate, has already been administered, may be in error or contraindicated for patient; deciding whether to refuse to inject (Tasks 133, 299).
4. Concluding whether patient's pain or difficulty in passing a urethral catheter warrants termination of procedure and reporting to physician in charge (Tasks 143, 181).
5. Concluding whether tracheostomy passage has been sufficiently cleared by suctioning and whether surrounding area needs cleansing (Task 182).
6. Concluding when patient needs to have oxygen administered and whether patient is responding (Task 185).
7. Concluding whether ECG being monitored shows emergency signs or unusual reading; deciding whether to report this (Task 308).

To accomplish this, the student must be able to indicate the types of information from which he or she must draw in the various instances of the activity which may arise, and must be able to indicate what inferences, consequences, or conclusions are implied by various possible combinations of information as appropriate for the situations. The student should be able to defend the implications drawn using appropriate criteria.

Cross Reference Footnotes: See The Following Curriculum Objectives:
Same scale value appears in: 119 121 122 123.
Higher scale value appears in: 124 125 126 127 128.

CURRICULUM OBJECTIVE SHEET Page 1 of 1

Type of Objective Skill Factor VI No. 121

Skill or Knowledge Category Implicative Skills Scale Value 1.0

Occupation Quality Assurance Aide Level 1

Refers to Task Code No(s).: 8 70 275 354

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to come to conclusions, draw implications, or foresee consequences based on information in order to carry out the following activities:

1. Concluding whether computerized transverse axial tomography equipment is displaying a problem while it is being shut down; concluding whether it would be best to check personally, report to supervisor, call service organization, have test runs made, or run tests personally (Task 8).

2. Concluding whether there is a problem with manual film processing equipment based on visual inspection for contamination, dirt, exhaustion of developer or fixer soloutions or water bath after pH test of fixer, check of temperature, check for light leaks, check of condition of film hangers; concluding what is best to do (Task 70).

3. Concluding whether subtraction prints in various stages of preparation are up to acceptable standards for diagnostic use (Task 275).

4. Concluding what patient records will be needed for specific purposes such as an examination, special procedure, treatment, or case conference (Task 354).

To accomplish this, the student must be able to indicate the types of information from which he or she must draw in the various instances of the activity which may arise, and must be able to indicate what inferences, consequences, or conclusions are implied by various possible combinations of information as appropriate for the situations. The student should be able to defend the implications drawn using appropriate criteria.

Cross Reference Footnotes: See The Following Curriculum Objectives:
Same scale value appears in: 119 120 122 123.
Higher scale value appears in: 124 125 126 127 128.

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Type of Objective Skill Factor VI No. 122

Skill or Knowledge Category Implicative Skills Scale Value 1.0

Occupation Quality Assurance Technician Level 2

Refers to Task Code No(s).: 173 175 178 523 527 529 530 531 532 533 535 537 538 539 540 543 544 545 548 549 556

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to come to conclusions, draw implications, or foresee consequences based on information in order to carry out the following activities:

1. Concluding whether problems encountered with x-ray machines are independent of timer accuracy after doing spinning top test; concluding nature of timer problems from results (Task 173).

2. Concluding whether there are problems with calibration of kVp or mA selectors after doing penetrometer test; concluding nature of problem, whether repair is needed (Task 175).

3. Concluding whether there are problems with fluoroscopic controls after checking equipment; concluding nature of problem,whether repair is needed (Task 178).

4. Concluding whether there are problems with computerized transverse axial tomography equipment after preparing for use; concluding nature of problem,whether repair or testing is needed (Task 523).

5. Concluding when computerized transverse axial scan display is adjusted for optimum sharpness and density gradation for the tissues in the area of interest and the possible pathological condition involved (Task 527).

6. Concluding whether diagnostic x-ray equipment meets acceptable standards for field limitation, receptor and light field alignment, minimum TOD, TFD, and field size indicators after making radiographic tests; concluding effects of any problems and deviations from acceptable standards in terms of patient exposure, diagnostic reliability, legal requirements (Task 530).

7. Concluding whether diagnostic x-ray equipment meets acceptable standards for fluoroscopic and spot film field limitation, field and image receptor alignment, maximum TID, minimum TOD and other requirements after inspecting, making radiographic tests; concluding effects of any problems and deviations from acceptable standards (Task 530).

8. Concluding whether diagnostic x-ray tube overload protection and effective focal spot size meet acceptable standards after making tests; concluding effects of any problems and deviations from acceptable standards (Task 531).

CURRICULUM OBJECTIVE SHEET (continued) Page 2 of 3

Type of Objective Skill Factor VI No. 122

Skill or Knowledge Cagegory Implicative Skills Scale Value 1.0

Content Continued

9. Concluding whether diagnostic x-ray equipment exposure timers and/or automatic exposure termination devices meet acceptable standards after making direct calibration tests: concluding effects of any problems and deviations from acceptable standards (Tasks 532, 533).

10. Concluding whether kVp, mA, mAs, exposure rates or reproducibility of diagnostic x-ray equipment output meet acceptable standards after making direct calibration tests or making calibrated penetrometer and/or densitometer tests of calibration; concluding effects of any problems and deviations from acceptable standards (Task 535).

11. Concluding whether tomography equipment functions mechanically and whether fulcrum position, resolution, exposure uniformity and/or grid alignment meet acceptable standards after making mechanical and radiographic tests; concluding effects of any problems and deviations from acceptable standards (Task 537).

12. Concluding whether inherent filtration of diagnostic x-ray equipment meets acceptable standards after making radiographic tests; concluding effects of any problems and deviations from acceptable standards (Task 538).

13. Concluding whether bucky grid alignment and/or centering of diagnostic x-ray equipment meets acceptable standards after making mechanical or radiographic tests; concluding effects of any problems and deviations from acceptable standards (Task 539).

14. Concluding whether automatic brightness control and/or the focus, resolution, and distortion of fluoroscopic optical system meet acceptable standards after making radiographic tests; concluding effects of any problems and deviations from acceptable standards (Task 540).

15. Concluding whether automatic x-ray film processors show malfunction of processing components, errors in temperature,or need to replenish processing chemicals after making radiographic and sensitometer, densitometer tests; concluding whether variations are within acceptable range or the corrective steps to take (Task 543).

16. Concluding the appropriate uses for x-ray film and/or dosimetric film batches after determining exposure characteristics (Task 544).

17. Concluding whether diagnostic x-ray examinations being conducted meet acceptable patient exposure standards after monitoring patient exposure rates; concluding the gonadal shielding appropriate for specific examinations and positions, concluding whether equipment problems exist; concluding effects of problems and deviations from acceptable standards (Task 545).

Type of Objective Skill Factor VI No. 122
Skill or Knowledge Cagegory Implicative Skills Scale Value 1.0

Content Continued

18. Determining whether diagnostic x-ray equipment meets acceptable limits for entrance exposure rate, barrier transmitted rate, leakage radiation rate from source assembly after making tests; concluding effect of problems and deviations from acceptable standards (Tasks 548, 549).

19. Concluding whether there are problems with calibration of diagnostic test, survey, or electrical measuring instruments, densitometer, or sensitometer after carrying out tests; concluding what to do with equipment (Task 556).

To accomplish this, the student must be able to indicate the types of information from which he or she must draw in the various instances of the activity which may arise, and must be able to indicate what inferences, consequences, or conclusions are implied by various possible combinations of information as appropriate for the situations. The student should be able to defend the implications drawn using appropriate criteria.

Cross Reference Footnotes: See The Following Curriculum Objectives:
Same scale value appears in: 119 120 121 123.
Higher scale value appears in: 124 125 126 127 128.

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Type of Objective Skill Factor III No. 123
Skill or Knowledge Category Implicative Skills Scale Value 1.0
Occupation Radiologic Technologist Level 3
Refers to Task Code No(s).: 370 371 372 373

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to come to conclusions, draw implications, or foresee consequences based on information in order to carry out the following activities:

1. Concluding whether request for operating room radiography is properly authorized, complete, and whether there is sufficient information for performer to prepare equipment and carry out radiography (Tasks 370, 371, 372, 373).

To accomplish this, the student must be able to indicate the types of information from which he or she must draw in the various instances of the activity which may arise, and must be able to indicate what inferences, consequences, or conclusions are implied by various possible combinations of information as appropriate for the situations. The student should be able to defend the implications drawn using appropriate criteria.

Cross Reference Footnotes: See The Following Curriculum Objectives:
Same scale value appears in: 119 120 121 122.
Higher scale value appears in: 124 125 126 127 128.

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Type of Objective Skill Factor IV No. 124

Skill or Knowledge Category Implicative Skills Scale Value 2.0

Occupation Patient Care Aide Level 1

Refers to Task Code No(s).: 73 295

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to come to conclusions, draw implications, or foresee consequences based on information in order to carry out the following activities:

1. Concluding what would be appropriate answers and/or consequences of own responses when answering patients' questions about diagnostic radiography procedures (Task 73).

2. Concluding when it is important or appropriate for performer to raise issues and/or participate in discussion during departmental meeting of nursing staff (Task 295).

To accomplish this, the student must be able to indicate the types of information from which he or she must draw in the various instances of the activity which may arise, and must be able to indicate what inferences, consequences, or conclusions are implied by various possible combinations of information as appropriate for the situations. The student should be able to defend the implications drawn using appropriate criteria.

Cross Reference Footnotes: See The Following Curriculum Objectives:

Lower scale value appears in: 119 120 121 122 123.

Same scale value appears in: 125 126 127.

Higher scale value appears in: 128.

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Type of Objective Skill Factor IV No. 125
Skill or Knowledge Category Implicative Skills Scale Value 2.0
Occupation Patient Care Technician Level 2
Refers to Task Code No(s).: 280

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to come to conclusions, draw implications, or foresee consequences based on information in order to carry out the following activities:

1. Concluding whether performer has been accidentally exposed to excessive radiation, and/or drawing implications about past exposure to try to explain possible source of recorded high personal exposure to radiation (Task 280).

To accomplish this, the student must be able to indicate the types of information from which he or she must draw in the various instances of the activity which may arise, and must be able to indicate what inferences, consequences, or conclusions are implied by various possible combinations of information as appropriate for the situations. The student should be able to defend the implications drawn using appropriate criteria.

Cross Reference Footnotes: See The Following Curriculum Objectives:
Lower scale value appears in: 119 120 121 122 123.
Same scale value appears in: 124 126 127.
Higher scale value appears in: 128.

CURRICULUM OBJECTIVE SHEET Page 1 of 1

Type of Objective Skill Factor VI No. 126
Skill or Knowledge Category Implicative Skills Scale Value 2.0
Occupation Quality Assurance Technician Level 2
Refers to Task Code No(s).: 78 276 280 524 525 550

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to come to conclusions, draw implications, or foresee consequences based on information in order to carry out the following activities:

1. In checking and jacketing radiographic materials and finding missing information, concluding what a radiograph represents, the view, the patient,or the technologist who made it,based on information sources and other materials available (Task 78).
2. Concluding the probable source of reported problems with automatic x-ray film processing machine, the method of investigation, and what to do (Task 276).
3. Concluding whether performer has been accidentally exposed to excessive radiation, and/or drawing implications about past exposure to try to explain source of recorded high personal exposure to radiation (Task 280).
4. Concluding the possible source of problems with computerized transverse axial tomography equipment and the method of investigation or repair (Tasks 524, 525).
5. Concluding whether stray radiation and transmission across primary and secondary protective barriers in a diagnostic x-ray installation survey is within acceptable limits for personnel maximum permissible dose equivalents after making appropriate tests and considering appropriate factors; drawing implications for deployment of staff, on sources of problems, on corrective measures, effect of problems and deviations from acceptable standards (Task 550).

To accomplish this, the student must be able to indicate the types of information from which he or she must draw in the various instances of the activity which may arise, and must be able to indicate what inferences, consequences, or conclusions are implied by various possible combinations of information as appropriate for the situations. The student should be able to defend the implications drawn using appropriate criteria.

Cross Reference Footnotes: See The Following Curriculum Objectives:
Lower scale value appears in: 119 120 121 122 123.
Same scale value appears in: 124 125 127.
Higher scale value appears in: 128 and level 5.

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Type of Objective Skill Factor III No. 127
Skill or Knowledge Category Implicative Skills Scale Value 2.0
Occupation Radiologic Technologist Level 3
Refers to Task Code No(s).: 81 280 353 355 356 357 358 359 360 361 362 363 364 365 366 367 368 369 374 375 376 377 378 379 380 381 382 383 384 385 386 387 388 389 390 463 464 465 466 467 468 491 492 493 494 495 496 497 (*continued below)
Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to come to conclusions, draw implications, or foresee consequences based on information in order to carry out the following activities:

1. Concluding whether radiographs demonstrate that correct patient positioning, collimation, and shielding have been accomplished, and whether the radiographs demonstrate the area and condition of interest satisfactorily for diagnostic purposes based on review of requisition and examination of radiographs; concluding whether problems are due to technologist's performance, malfunctioning of x-ray or processing equipment (Task 81).

2. Concluding whether performer has been accidentally exposed to excessive radiation, and/or drawing implications about past exposure to try to explain possible source of recorded high personal exposure to radiation (Task 280).

3. Concluding when it is important or appropriate for performer to raise issues and/or participate in discussion during departmental meeting of radiologic technologist staff (Task 353).

4. Concluding whether there are possible contraindications to a radiographic examination that should be brought to radiologist's attention, such as possible exposure of fetus, recent duplication of examination, or specific patient conditions, based on reading patient's medical-technical history, requisition sheet, observation and/or interview with patient, and signs of distress, adverse or emergency reaction (all tasks listed as appropriate except Tasks 81 and 280).

5. Concluding from patient's medical-technical history, requisition, discussion with accompanying staff member, patient, or observation of patient's tissue or body type or presence of pain whether positioning or exposure technique should be modified (all tasks listed as appropriate except Tasks 81 and 280).

6. Concluding whether patient is having an adverse or emergency reaction to procedure or contrast medium, or is showing signs of distress, or needs readjustment of life support equipment; concluding which staff member to notify (all tasks listed as appropriate except Tasks 81 and 280).

7. Drawing implications from information on the patient's condition about the way to conduct examination to make patient most comfortable (all tasks listed as appropriate except Tasks 81 and 280).

CURRICULUM OBJECTIVE SHEET (continued) Page 2 of 2

Type of Objective Skill Factor III No. 127
Skill or Knowledge Cagegory Implicative Skills Scale Value 2.0

Content Continued

8. Concluding what information to convey to patient based on patient's condition and behavior (all tasks listed as appropriate except Tasks 81 and 280).

To accomplish this, the student must be able to indicate the types of information from which he or she must draw in the various instances of the activity which may arise, and must be able to indicate what inferences, consequences, or conclusions are implied by various possible combinations of information as appropriate for the situations. The student should be able to defend the implications drawn using appropriate criteria.

Cross Reference Footnotes: See The Following Curriculum Objectives:
Lower scale value appears in: 119 120 121 122 123.
Same scale value appears in: 124 125 126.
Higher scale value appears in: 128 and level 5.

* 498 499 500 501 502 503 504 505 506 507 508 509 510 511 512 513 514 515 516 517 518 519 526.

CURRICULUM OBJECTIVE SHEET Page 1 of 1

Type of Objective Skill Factor IV No. 128

Skill or Knowledge Category Implicative Skills Scale Value 5.0

Occupation Patient Care Technician Level 2

Refers to Task Code No(s).: 296

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to come to conclusions, draw implications, or foresee consequences based on information in order to carry out the following activities:

1. Concluding from information and examination of patient the nature and severity of emergency arising in department; concluding what procedures to follow; concluding while administering first aid whether patient is responding, and adjusting as appropriate (Task 296).

To accomplish this, the student must be able to indicate the types of information from which he or she must draw in the various instances of the activity which may arise, and must be able to indicate what inferences, consequences, or conclusions are implied by various possible combinations of information as appropriate for the situations. The student should be able to defend the implications drawn using appropriate criteria.

Cross Reference Footnotes: See The Following Curriculum Objectives:

Lower scale value appears in: 119 120 121 122 123 124 125 126 127.

Same scale value appears in level 4 of patient care.

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Type of Objective Skill Factor IV No. 129

Skill or Knowledge Category Financial Consequences of Error Scale Value 1.0

Occupation Patient Care Aide Level 1

Refers to Task Code No(s).: 73 74 98 113 138 153 155 166 199 262 271 278 282 283 287 289 290 291 303

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to display an appropriate awareness of the financial consquences which can result from errors, even after proper training, in the performance of the following tasks:

1. Reassuring any patient and/or accompanying adult about x-ray and/or fluoroscopy procedures (Task 73).

2. Explaining to any out-patient or accompanying adult proper at-home procedures to follow prior to coming for radiographic or fluoroscopic examination (Task 74).

3. Obtaining a clean catch urine specimen from any patient and preparing for laboratory (Task 98).

4. Giving any patient general reassurance (Task 113).

5. Reporting observed symptoms and concerns of any patient to physician or staff member (Task 138).

6. Assisting physician or co-worker in special examination or treatment procedures (Task 153).

7. Obtaining urine specimen on orders (Task 155).

8. Using isolation and decontamination techniques to prepare examination or treatment room or area and clean up afterwards for patient with infectious or communicable condition (Task 166).

9. Taking and recording vital signs (temperature, pulse, respiration and blood pressure) of any patient (Task 199).

10. Taking an electrocardiogram of any patient as ordered or determined (Task 262).

11. Deciding whether to call staff person to evaluate whether unusual ECG reading is artifact, or calling physician in case of serious patient distress (Task 271).

12. Checking on reasons for nonappearance of in-patients for examinations or treatment (Task 278).

13. Escorting adult out-patients to and/or from dressing rooms, treatment rooms and/or waiting areas (Task 282).

CURRICULUM OBJECTIVE SHEET (continued) Page 2 of 2

Type of Objective Skill Factor IV No. 129
Skill or Knowledge Cagegory Financial Consequences of Error Scale Value 1.0

Content Continued

14. On orders, deciding whether wound of any patient needing change of dressing needs attention of RN; changing simple dry dressing or reinforcing wet dressing (Task 283).

15. On orders, placing order for specific dietetic meal; picking up, delivering, and feeding patient if so decided (Task 287).

16. Bottle feeding a baby with pre-prepared formula (Task 289).

17. Changing any patient's colostomy bag on orders (Task 290).

18. Taking and reporting temperature of any non-pediatric patient with oral thermometer on orders (Task 291).

19. Arranging, measuring, and recording food intake and excretory output as ordered (Task 303).

To accomplish this, the student must be able to indicate the financial value of the output, equipment, materials, or time involved in the tasks. The student should be able to indicate what the most obvious errors during learning would be, the most serious likely error after proper training has been accomplished, what the financial consequences would be, should be able to state what should be done to avoid the errors, and should be able to carry this out.

Cross Reference Footnotes: See The Following Curriculum Objectives:
Same scale value appears in: 130 131 132 133 134.
Higher scale value appears in: 135 136 137.

CURRICULUM OBJECTIVE SHEET Page 1 of 2

Type of Objective Skill Factor IV No. 130

Skill or Knowledge Category Financial Consequences of Error Scale Value 1.0

Occupation Patient Care Technician Level 2

Refers to Task Code No(s).: 18 33 65 133 143 156 181 185 198 280 296 298 299 308 522

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to display an appropriate awareness of the financial consequences which can result from errors, even after proper training, in the performance of the following tasks:

1. Drawing blood from any non-pediatric patient's veins on orders (Task 18).
2. Removing any patient's sutures (Task 33).
3. Preparing specimens such as extravascular body fluids, washings, cell and/or tissue biopsies for transportation to laboratory (Task 65).
4. Administering subcutaneous or intramuscular injection for any patient according to MD's orders after having quantity checked (Task 133).
5. Catheterizing any female urethra as ordered (Task 143).
6. Irrigating, cleaning, dressing or redressing any patient's wound, burn, or opening for catheter as ordered (Task 156).
7. Catheterizing any male or female patient's urethra with retention balloon catheter (Task 181).
8. Administering oxygen from portable or piped outlet unit using oronasal or nasal mask according to MD's orders (Task 185).
9. Administering medication orally to any patient according to MD's orders after having quantity checked (Task 198).
10. Participating in monitoring of personal exposure to radiation by periodically turning in and replacing film strip in badge worn by performer (Task 280).
11. Providing first aid in x-ray department emergency (Task 296).
12. Administering medication orally to any patient according to MD's orders (Task 298).
13. Administering subcutaneous or intramuscular injection for any patient according to MD's orders (Task 299).
14. Setting up and monitoring any patient's electrocardiogram during special procedure (Task 308).

CURRICULUM OBJECTIVE SHEET (continued) Page 2 of 2

Type of Objective Skill Factor IV No. 130
Skill or Knowledge Cagegory Financial Consequences of Error Scale Value 1.0

Content Continued

15. Applying pressure dressing to arterial or venous puncture site (Task 522).

To accomplish this, the student must be able to indicate the financial value of the output, equipment, materials, or time involved in the tasks. The student should be able to indicate what the most obvious errors during learning would be, the most serious likely error after proper training has been accomplished, what the financial consequences would be, should be able to state what should be done to avoid the errors, and should be able to carry this out.

Cross Reference Footnotes: See The Following Curriculum Objectives:
Same scale value appears in: 129 131 132 133 134.
Higher scale value appears in: 135 136 137.

CURRICULUM OBJECTIVE SHEET Page 1 of 3

Type of Objective Skill Factor VI No. 131

Skill or Knowledge Category Financial Consequences of Error Scale Value 1.0

Occupation Quality Assurance Aide Level 1

Refers to Task Code No(s).: 8 69 70 71 72 79 80 95 134 135 136 137 145 163 164 167 180 192 222 227 260 267 269 273 274 275 284 285 286 288 297 304 319 354 551 552

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to display an appropriate awareness of the financial consequences which can result from errors, even after proper training, in the performance of the following tasks:

1. Shutting down computerized transverse axial scanning equipment (Task 8).
2. Processing exposed x-ray film in automatic processor (Task 69).
3. Inspecting, cleaning, and readying x-ray film hand processing equipment for use (Task 70).
4. Processing exposed x-ray film manually (Task 71).
5. Loading x-ray film cassette(s), nonscreen film holder(s), box(es), and/or roll film cartridges (Task 72).
6. Preparing barium sulfate contrast medium as ordered or for standard use (Task 79).
7. Preparing materials or trays with medications and materials for special treatments or procedures according to standard orders (Task 80).
8. Testing a urine sample by tablet or dipstick method and recording results (Task 95).
9. Logging and/or tallying patient services and/or instructional case record materials for use in record keeping, billing, or instruction (Task 134).
10. Cleaning an examination or treatment room after use (Task 135).
11. Checking and storing order for non-narcotic drugs and/or supplies (Task 136).
12. Delivering prepared specimens or cultures to lab or incubator (Task 137).
13. Preparing treatment or examination equipment for sterilization in autoclave (Task 145).
14. Filling out institutional report form (such as for cancellation) as ordered by MD (Task 163).
15. Filling out patient identification information on labels and forms in anticipation of need or as requested (Task 164).

Type of Objective Skill Factor VI No. 131

Skill or Knowledge Cagegory Financial Consequences of Error Scale Value 1.0

Content Continued

16. Inspecting and cleaning intensifying screens in cassette holders (Task 167).

17. Preparing blood samples for the laboratory (Task 180).

18. Inspecting, checking, preparing xeroradiography equipment for use (Task 192).

19. Making photocopies of documents, collating, and stapling (Task 222).

20. Checking for presence and condition of emergency supplies in proper locations; and restocking as needed (Task 227).

21. Preparing a hypodermic needle with injection dosage on orders (Task 260).

22. Processing exposed Polaroid x-ray film with Polaroid automatic processing equipment (Task 267).

23. Loading empty cassette with Polaroid x-ray film (Task 269).

24. Cleaning, inspecting and readying automatic x-ray film processor(s) for use (Task 273).

25. Adding predetermined instruments and supplies to prepared procedure trays (Task 274).

26. Preparing radiographic subtraction prints (Task 275).

27. Checking presence and functioning of oxygen and/or suction equipment, and amounts of oxygen (Task 284).

28. Checking for presence of emergency supplies in proper locations (Task 285).

29. Filling out standard order for linen; picking up, folding and storing (Task 286).

30. Filling out and delivering standard order for food items for department; picking up, and placing food for storage (Task 288).

31. Obtaining and checking keypunch control card for serial cassette changer as ordered (Task 297).

32. Readying emergency cart (Task 304).

33. Applying print coater to photographs (Task 319).

34. Obtaining patient records for use in examination, procedure, treatment, or conference (Task 354).

Type of Objective Skill Factor VI No. 131
Skill or Knowledge Cagegory Financial Consequences of Error Scale Value 1.0

Content Continued

35. Preparing personnel radiation monitoring dosimetric film or TLD badges and distributing (Task 551).

36 Collecting and/or distributing personnel monitoring dosimetric badge inserts and preparing for outside or in-house processing and reading (Task 552).

To accomplish this, the student must be able to indicate the financial value of the output, equipment, materials or time involved in the tasks. The student should be able to indicate what the most obvious errors during the learning would be, the most serious likely error after proper training has been accomplished, what the financial consequences would be, should be able to state what should be done to avoid the errors, and should be able to carry this out.

Cross Reference Footnotes: See The Following Curriculum Objectives:
Same scale value appears in: 129 130 132 133 134.
Higher scale value appears in: 135 136 137.

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Type of Objective Skill Factor VI No. 132

Skill or Knowledge Category Financial Consequences of Error Scale Value 1.0

Occupation Quality Assurance Technician Level 2

Refers to Task Code No(s).: 78 173 280 523 524 525 527 529 530 531 532 533 534 536 537 538 539 540 543 544 545 548 549 550 553 554 556

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to display an appropriate awareness of the financial consequences which can result from errors, even after proper training, in the performance of the following tasks:

1. Checking and jacketing patient's radiographs, ultrasonograms, and/or C.T.T. scans with requisition sheets and prior diagnostic materials and placing for filing and interpreting (Task 78).

2. Checking accuracy of x-ray machine timers (except phototimers) with spinning top test (Task 173).

3. Participating in monitoring of personal exposure to radiation by periodically turning in and replacing film strip in badge worn by performer (Task 280).

4. Preparing computerized transverse axial tomography (C.T.T.) equipment for use (Task 523).

5. Providing preventive maintenance for display tube surface, camera, disc and/or tape drive units, and/or scanning assembly (especially water-using head box assembly) of computerized transverse axial tomography (C.T.T.) equipment (Task 524).

6. Checking calibration and accuracy of C.T.T. equipment by making test scans (Task 525).

7. Retrieving, displaying and making photographs, printouts and/or magnetic tape records of computerized transverse axial tomographic (C.T.T.) scans (Task 527).

8. Checking x-ray field limitation, x-ray receptor and light field alignment, minimum TOD, TFD and field size indicators for diagnostic x-ray equipment (Task 529).

9. Checking fluoroscopic and spot film x-ray field limitation, x-ray field and image receptor alignment, maximum TID, minimum TOD, and other requirements (Task 530).

10. Testing whether diagnostic x-ray tube overload protection and/or effective focal spot size meet acceptable standards (Task 531).

11. Checking and/or performing direct calibration tests of diagnostic radiography equipment exposure timers (Task 532).

CURRICULUM OBJECTIVE SHEET (continued) Page 2 of 3

Type of Objective Skill Factor VI No. 132

Skill or Knowledge Cagegory Financial Consequences of Error Scale Value 1.0

Content Continued

12. Checking automatic exposure termination of diagnostic radiography equipment (Task 533).

13. Providing visual and radiographic or fluoroscopic inspection of personnel shielding devices such as leaded gloves, aprons, sheets, gonadal shields (Task 534).

14. Providing visual and/or manual inspection of diagnostic radiography system (Task 536).

15. Checking diagnostic tomography x-ray equipment for mechanical operation, fulcrum position, resolution, exposure uniformity and/or grid alignment (Task 537).

16. Estimating HVL and checking adequacy of filtration of diagnostic x-ray equipment (Task 538).

17. Checking bucky grid alignment and/or centering in diagnostic radiography equipment (Task 539).

18. Checking fluoroscopic automatic brightness control system and/or focus, resolution and distortion of the optical system (Task 540).

19. Monitoring and evaluating x-ray film processors (Task 543).

20. Determining exposure characteristics of x-ray and/or dosimetric films (Task 544).

21. Monitoring patient exposure rates for routine diagnostic x-ray procedures (Task 545).

22. Checking maximum entrance exposure rate and primary barrier transmitted radiation rate for fluoroscopic equipment (Task 548).

23. Checking the leakage radiation rate from the source assembly of diagnostic x-ray equipment (Task 549).

24. Conducting protection survey of stray radiation within diagnostic x-ray installation and transmission across primary and secondary protective barriers (Task 550).

25. Reading and recording exposure from personnel monitoring film or thermoluminescent dosimeters (Task 553).

26. Entering, evaluating occupational radiation exposure data and initiating action on dangerous levels (Task 554).

CURRICULUM OBJECTIVE SHEET (continued) Page 3 of 3

Type of Objective Skill Factor VI No. 132

Skill or Knowledge Cagegory Financial Consequences of Error Scale Value 1.0

Content Continued

27. Calibrating diagnostic x-ray test, survey, or measuring instruments (Task 556).

To accomplish this, the student must be able to indicate the financial value of the output, equipment, materials, or time involved in the tasks. The student should be able to indicate what the most obvious errors during learning would be, the most serious likely error after proper training has been accomplished, what the financial consequences would be, should be able to state what should be done to avoid the errors, and should be able to carry this out.

Cross Reference Footnotes: See The Following Curriculum Objectives:

Same scale value appears in: 129 130 131 133 134.

Higher scale value appears in: 135 136 137.

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Type of Objective Skill Factor III No. 133
Skill or Knowledge Category Financial Consequences of Error Scale Value 1.0
Occupation Radiologic Technologist Level 3
Refers to Task Code No(s).: 280 353 355 356 357 358 359 360 361 362 363 364 365
366 367 368 369 374 375 376 377 378 379 380 381 382 383 384 385 386 387 388 389
390 463 464 465 466 467 468 491 492 493 494 495 496 497 498 499 (*continued below)
Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to display an appropriate awareness of the financial consequences which can result from errors, even after proper training, [illegible] the performance of the following tasks:

1. Participating in monitoring of personal exposure to radiation by periodically turning in and replacing film strip in badge worn by performer (Task 280).

2. Participating in meeting of diagnostic x-ray department technologists (Task 353).

3. Taking plain film radiographs of non-infant patient's fingers, hands, or wrists; forearm and/or elbow joint; humerus and/or shoulder girdle; toes, feet, and/or ankle joint; legs, knees, and/or femora; pelvis, hips, and/or upper femora; vertebral column; sternum, ribs, and/or thoracic viscera; abdominal contents; anterior neck; skull and/or face; or paranasal sinuses (Tasks 355, 356, 357, 358, 359, 360, 361, 362, 363, 364, 365, 366).

4. Taking preliminary localization radiographs of foreign bodies in orbit or eye of non-infant patient (Task 367).

5. Taking mammograms (radiography or xeroradiography) of non-infant patient (Task 368).

6. Preparing, transporting, setting up, and returning mobile portable radiography equipment for bedside radiography (Task 369).

7. Taking tomograms of non-infant patient (Task 374).

8. Taking sialograms of any patient (Task 375).

9. Taking lymphangiograms or lymphadenograms of any patient (Task 376).

10. Taking positive contrast arthrograms (especially of knee) of any patient (Task 377).

11. Taking bronchograms of a non-pediatric patient (Task 378).

12. Carrying out radiologic technology for bronchoscopy or needle lung biopsy of a non-pediatric patient (Task 379).

CURRICULUM OBJECTIVE SHEET (continued) Page 2 of 4

Type of Objective Skill Factor III No. 133

Skill or Knowledge Cagegory Financial Consequences of Error Scale Value 1.0

Content Continued

13. Providing technical assistance for laryngography or cleft palate study of any patient (or any similar fluoroscopic examination including spot filming and/or cineradiography) (Task 380).

14. Taking upper GI radiographs, small intestine intubation radiographs, barium enema radiographs of non-pediatric patient (Tasks 381, 382, 383).

15. Taking oral cholecystograms and cholangiograms, intravenous cholangiograms and cholecystograms, percutaneous or T-tube cholangiograms of non-infant patient (Tasks 384, 385, 386).

16. Taking intravenous pyelograms and urograms of non-pediatric patient (Task 387).

17. Taking infusion nephrotomograms of any patient (Task 388).

18. Taking percutaneous antegrade or renal cyst pyelograms of non-infant patient (Task 389).

19. Taking cystograms and voiding cystourethrograms of any patient (Task 390).

20. Taking retrograde pyelograms and ureterograms of non-pediatric patient (Task 463).

21. Providing technical assistance for an examination of any patient requiring fluoroscopic control and spot filming (Task 464).

22. Taking pelvic pneumograms and/or hysterosalpingograms of non-pediatric female patient (Task 465).

23. Taking radiographs of a pregnant patient's abdomen for fetography, amniography, placentography, patient's uterus for intra-uterine transfusion, patient's pelvis for Colcher-Sussman pelvimetry (Tasks 466, 467, 468).

24. Taking plain film radiographs of the skull, vertebral column, upper extremities, neck, chest, abdomen, or lower extremities of infant or pediatric patient (Tasks 491, 492, 493, 494, 495, 496).

25. Taking radiographs for choanal atresia study of infant patient (Task 497).

26. Taking bronchograms of a pediatric patient (Task 498).

27. Taking upper GI radiographs, barium enema, intussusception,or defecography radiographs of pediatric patient (Tasks 499, 500).

28. Taking percutaneous peritoneograms/herniograms, excretory intravenous inferior vena cavograms and urograms of pediatric patient (Tasks 501, 502).

Type of Objective Skill Factor III No. 133
Skill or Knowledge Cagegory Financial Consequences of Error Scale Value 1.0

Content Continued

29. Taking genitograms or fistulograms of any patient for intersex, external fistula or sinus tract examination (Task 503).

30. Taking cerebral angiograms or venograms of any patient (Task 504).

31. Taking pneumoencephalograms or brain vetriculograms of any patient (Task 505).

32. Taking positive contrast spinal or posterior fossa myelograms of any patient (Task 506).

33. Taking diskograms of any patient (Task 507).

34. Taking air or gas contrast myelograms of any patient (Task 508).

35. Taking spinal cord angiograms of any patient (Task 509).

36. Taking peripheral angiograms of any patient (Task 510).

37. Taking catheter thoracic and/or abdominal aortograms of any patient, and/or selective visceral arteriograms (bronchial or abdominal) (Task 511).

38. Taking selective pelvic angiograms of non-pediatric gravid or nongravid female patient (Task 512).

39. Taking intravenous angiocardiograms of any patient (Task 513).

40. Taking selective thyroid angiograms of any patient (Task 514).

41. Taking catheter inferior vena cavograms and/or renal or adrenal venograms of non-infant patient (Task 515).

42. Taking percutaneous splenoportograms of any patient (Task 516).

43. Taking selective subclavian arteriograms of non-pediatric patient for thoracic outlet syndrome evaluation (Task 517).

44. Taking selective pulmonary angiograms or selective angiocardiograms of any patient (Task 518).

45. Taking percutaneous coronary arteriograms and/or left ventriculograms of any patient (Task 519).

46. Taking computerized transverse axial tomographic (C.T.T.) scans of any patient (Task 526).

CURRICULUM OBJECTIVE SHEET (continued) Page 4 of 4

Type of Objective Skill Factor III No. 133

Skill or Knowledge Cagegory Financial Consequences of Error Scale Value 1.0

Content Continued

To accomplish this, the student must be able to indicate the financial value of the output, equipment, materials, or time involved in the tasks. The student should be able to indicate what the most obvious errors during learning would be, the most serious likely error after proper training has been accomplished, what the financial consequences would be, should be able to state what should be done to avoid the error, and should be able to carry this out.

Cross Reference Footnotes: See The Following Curriculum Objectives:

Same scale value appears in: 129 130 131 132 134.

Higher scale value appears in: 135 136 137.

* 500 501 502 503 504 505 506 507 508 509 510 511 512 513 514 515 516 517 518 519 526.

CURRICULUM OBJECTIVE SHEET Page 1 of 1

Type of Objective Skill Factor A No. 134
Skill or Knowledge Category Financial Consequences of Error Scale Value 1.0
Occupation Administrative Technologist Level 3
Refers to Task Code No(s).: 76 129 131 132 165 272 277

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to display an appropriate awareness of the financial consequences which can result from errors, even after proper training, in the performance of the following tasks:

1. Checking supplies and ordering non-drug materials; non-narcotic medicinals needed by department (Tasks 76, 129).

2. Making assignments of staff to work areas, procedures, and/or MD's, and/or vacations and lunch hours (Task 131).

3. Requesting repair, replacement or other services of another hospital department orally and/or filling out requisition (Task 132).

4. Keeping attendance records and recording or reporting excessive lateness and/or absenteeism (Task 165).

5. Preparing and adjusting schedules for patient procedures; assigning scheduled patients to procedure rooms in appropriate order (Tasks 272, 277).

To accomplish this, the student must be able to indicate the financial value of the output, equipment, materials, or time involved in the tasks. The student should be able to indicate what the most obvious errors during learning would be, the most serious likely error after proper training has been accomplished, what the financial consequences would be, should be able to state what should be done to avoid the errors, and should be able to carry this out.

Cross Reference Footnotes: See The Following Curriculum Objectives:
Same scale value appears in: 129 130 131 132 133.
Higher scale value appears in: 135 136 137.

CURRICULUM OBJECTIVE SHEET Page 1 of 1

Type of Objective Skill Factor VI No. 135
Skill or Knowledge Category Financial Consequences of Error Scale Value 4.0
Occupation Quality Assurance Aide Level 1
Refers to Task Code No(s).: 147

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to display an appropriate awareness of the financial consequences which can result from errors, even after proper training, in the performance of the following tasks:

1. Preparing or changing technique charts for specific x-ray and fluoroscopic equipment on orders (Task 147).

To accomplish this, the student must be able to indicate the financial value of the output, equipment, materials, or time involved in the tasks. The student should be able to indicate what the most obvious errors during learning would be, the most serious likely error after proper training has been accomplished, what the financial consequences would be, should be able to state what should be done to avoid the errors, and should be able to carry this out.

Cross Reference Footnotes: See The Following Curriculum Objectives:
Lower scale value appears in: 129 130 131 132 133 134.
Same scale value appears in: 136 137.

CURRICULUM OBJECTIVE SHEET Page 1 of 1

Type of Objective Skill Factor VI No. 136

Skill or Knowledge Category Financial Consequences of Error Scale Value 4.0

Occupation Quality Assurance Technician Level 2

Refers to Task Code No(s).: 175 178 276 535

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to display an appropriate awareness of the financial consequences which can result from errors, even after proper training, in the performance of the following tasks:

1. Performing penetrometer calibration test of kVp or mA selectors of x-ray machine output (Task 175).
2. Checking, preparing fluoroscope controls (and phototimer) (Task 178).
3. Making minor adjustments or repair on automatic x-ray film processor (Task 276).
4. Performing calibration tests of kVp, mA, mAs, exposure rates, reproducibility on diagnostic radiography equipment using direct measuring instruments and/or radiographic comparisons (Task 535).

To accomplish this, the student must be able to indicate the financial value of the output, equipment, materials, or time involved in the tasks. The student should be able to indicate what the most obvious errors during learning would be, the most serious likely error after proper training has been accomplished, what the financial consequences would be, should be able to state what should be done to avoid the errors, and should be able to carry this out.

Cross Reference Footnotes: See The Following Curriculum Objectives:

Lower scale value appears in: 129 130 131 132 133 134.

Same scale value appears in: 135 137 and level 5.

CURRICULUM OBJECTIVE SHEET Page 1 of 1

Type of Objective Skill Factor III No. 137

Skill or Knowledge Category Financial Consequences of Error Scale Value 4.0

Occupation Radiologic Technologist Level 3

Refers to Task Code No(s).: 370 371 372 373

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to display an appropriate awareness of the financial consequences which can result from errors, even after proper training, in the performance of the following tasks:

1. Taking operative orthopedic radiographs, operative cholangiograms, pancreatograms or similar operative radiographs, intravisceral or isolated operating room radiographs of any patient, or operating room radiographs for opaque foreign body search (Tasks 370, 371, 372, 373).

To accomplish this, the student must be able to indicate the financial value of the output, equipment, materials or time involved in the tasks. The student should be able to indicate what the most obvious errors during learning would be, the most serious likely error after proper training has been accomplished, what the financial consequences would be, should be able to state what should be done to avoid the errors, and should be able to carry this out.

Cross Reference Footnotes: See The Following Curriculum Objectives:

Lower scale value appears in: 129 130 131 132 133 134.

Same scale value appears in: 135 136 and level 5.

CURRICULUM OBJECTIVE SHEET

Page 1 of 2

Type of Objective Skill Factor IV No. 138
Skill or Knowledge Category Consequences of Error to Humans Scale Value 1.0
Occupation Patient Care Aide Level 1
Refers to Task Code No(s).: 73 74 98 113 155 199 262 278 279 281 287 290 291 302 303 520

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to display an appropriate awareness of what harm can be done to self, patients, co-workers, or society as a whole, as a result of errors, even after proper training, in the performance of the following tasks:

1. Reassuring any patient and/or accompanying adult about x-ray and/or fluoroscopy procedures (Task 73).
2. Explaining to any out-patient or accompanying adult proper at-home procedures to follow prior to coming for radiographic or fluoroscopic examination (Task 74).
3. Obtaining a clean catch urine specimen from any patient and preparing for laboratory (Task 98).
4. Giving any patient general reassurance (Task 113).
5. Obtaining urine specimen on orders (Task 155).
6. Taking and recording vital signs (temperature, pulse, respiration, and blood pressure) of any patient (Task 199).
7. Taking electrocardiogram of any patient as ordered or determined (Task 262).
8. Checking on reasons for nonappearance of in-patients for examinations or treatment (Task 278).
9. Notifying ward or floor personnel to ready and transport in-patients who are scheduled for specific procedures at specific times (Task 279).
10. Checking in-patients' identity against patients' treatment and medication check lists; stamping arrival and departure times; attaching cards to patients indicating special conditions (Task 281).
11. On orders, placing order for specific dietetic meal; picking up, delivering, and feeding patient if so decided (Task 287).
12. Changing any patient's colostomy bag on orders (Task 290).
13. Taking and reporting temperature of any non-pediatric patient with oral thermometer on orders (Task 291).
14. Placing or making call and delivering non-medical message at patient or co-worker's request (Task 302).

CURRICULUM OBJECTIVE SHEET (continued) Page 2 of 2

Type of Objective Skill Factor IV No. 138

Skill or Knowledge Cagegory Consequences of Error to Humans Scale Value 1.0

Content Continued

15. Arranging, measuring, and recording food intake and excretory output as ordered (Task 303).

16. Preparing any patient and attaching electrodes for electrocardiogram monitoring (Task 520).

To accomplish this, the student must be able to indicate the harm that can be done to humans at every point in the steps of the task(s). The student should be able to indicate what the most obvious errors during learning would be, the most serious likely error after proper training has been accomplished, what the consequences of error to humans would be, should be able to state what should be done to avoid error(s), and should be able to carry this out.

Cross Reference Footnotes: See The Following Curriculum Objectives:

Same scale value appears in: 139 140 141 142 143.

Higher scale value appears in: 144 145 146 147 148 149 150 151 152 153 154 155 156 157 158 159 160 161.

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Page 1 of 1

Type of Objective Skill Factor IV No. 139

Skill or Knowledge Category Consequences of Error to Humans Scale Value 1.0

Occupation Patient Care Technician Level 2

Refers to Task Code No(s).: 133 198

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to display an appropriate awareness of what harm can be done to self, patients, co-workers, or society as a whole, as a result of errors, even after proper training, in the performance of the following tasks:

1. Administering subcutaneous or intramuscular injection for any patient according to MD's orders after having quantity checked (Task 133).
2. Administering medication orally to any patient according to MD's orders after having quantity checked (Task 198).

To accomplish this, the student must be able to indicate the harm that can be done to humans at every point in the steps of the task(s). The student should be able to indicate what the most obvious errors during learning would be, the most serious likely error after proper training has been accomplished, what the consequences for humans would be, should be able to state what should be done to avoid error(s), and should be able to carry this out.

Cross Reference Footnotes: See The Following Curriculum Objectives:

Same scale value appears in: 138 140 141 142 143.

Higher scale value appears in: 144 145 146 147 148 149 150 151 152 153 154 155 156 157 158 159 160 161.

CURRICULUM OBJECTIVE SHEET
Page 1 of 2

Type of Objective Skill Factor VI No. 140
Skill or Knowledge Category Consequences of Error to Humans Scale Value 1.0
Occupation Quality Assurance Aide Level 1
Refers to Task Code No(s).: 8 72 95 134 135 136 145 147 163 164 167 184 222 223 227 260 264 267 269 274 275 284 285 286 288 297 300 354

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to display an appropriate awareness of what harm can be done to self, patients, co-workers, or society as a whole, as a result of errors, even after proper training, in the performance of the following tasks:

1. Shutting down computerized transverse axial scanning equipment (Task 8).
2. Loading x-ray film cassette(s), nonscreen film holder(s), box(es), and/or roll film cartridges (Task 72).
3. Testing a urine sample by tablet or dipstick method and recording (Task 95).
4. Logging and/or tallying patient services and/or instructional case record materials for use in record keeping, billing or instruction (Task 134).
5. Cleaning an examination or treatment room after use (Task 135).
6. Checking and storing order for non-narcotic drugs and/or supplies (Task 136).
7. Preparing treatment or examination equipment for sterilization in autoclave (Task 145).
8. Preparing or changing technique charts for specific x-ray and fluoroscopic equipment on orders (Task 147).
9. Filling out institutional report form (such as for cancellation) as ordered by MD (Task 163).
10. Filling out patient identification information on labels and forms in anticipation of need or as requested (Task 164).
11. Inspecting and cleaning intensifying screens in cassette holders (Task [illegible]67).
12. Relocking equipment box(es) with breakaway lock (Task 184).
13. Making photocopies of documents, collating, and stapling (Task 222).
14. Making up unoccupied bed or stretcher bed (Task 223).
15. Checking for presence and condition of emergency supplies in proper locations; and restocking as needed (Task 227).

CURRICULUM OBJECTIVE SHEET (continued) Page 2 of 2

Type of Objective Skill **Factor** VI **No.** 140

Skill or Knowledge Cagegory Consequences of Error to Humans **Scale Value** 1.0

Content Continued

16. Preparing a hypodermic needle with injection dosage on orders (Task 260).

17. Ordering duplicate copies of forms, records, or documents (Task 264).

18. Processing exposed Polaroid x-ray film with Polaroid automatic processing equipment (Task 267).

19. Loading empty cassette with Polaroid x-ray film (Task 269).

20. Adding predetermined instruments and supplies to prepared procedure trays (Task 274).

21. Preparing radiographic subtraction prints (Task 275).

22. Checking presence and functioning of oxygen and/or suction equipment, and amounts of oxygen (Task 284).

23. Checking for presence of emergency supplies in proper locations (Task 285).

24. Filling out standard order for linen; picking up, folding, and storing. (Task 286).

25. Filling out and delivering standard order for food items for department; picking up, and placing food for storage (Task 288).

26. Obtaining and checking keypunch control card for serial cassette changer as ordered (Task 297).

27. Checking and submitting accumulated patient's treatment and medication check lists for in and out time stamps (Task 300).

28. Obtaining patient records for use in examination, procedure, treatment, or conference (Task 354).

To accomplish this, the student must be able to indicate the harm that can be done to humans at every point in the steps of the task(s). The student should be able to indicate what the most obvious errors during learning would be, the most serious likely error after proper training has been accomplished, what the consequences for humans would be, should be able to state what should be done to avoid error(s), and should be able to carry this out.

Cross Reference Footnotes: See The Following Curriculum Objectives:
Same scale value appears in: 138 139 141 142 143.
Higher scale value appears in: 144 145 146 147 148 149 150 151 152 153 154 155 156 157 158 159 160 161.

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Type of Objective Skill Factor VI No. 141

Skill or Knowledge Category Consequences of Error to Humans Scale Value 1.0

Occupation Quality Assurance Technician Level 2

Refers to Task Code No(s).: 78 173 175 187

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to display an appropriate awareness of what harm can be done to self, patients, co-workers, or society as a whole, as a result of errors, even after proper training, in the performance of the following tasks:

1. Checking and jacketing patient's radiographs, ultrasonograms, and/or C.T.T. scans with requisition sheets and prior diagnostic materials, and placing for filing or interpreting (Task 78).

2. Checking accuracy of x-ray machine timers (except phototimers) with spinning top test (Task 173).

3. Performing penetrometer calibration test of kVp or mA selectors of x-ray machine output (Task 175).

4. Checking cassettes for proper film-screen contact (Task 187).

To accomplish this, the student must be able to indicate the harm that can be done to humans at every point in the steps of the task(s). The student should be able to indicate what the most obvious errors during learning would be, the most serious likely error after proper training has been accomplished, what the consequences for humans would be, should be able to state what should be done to avoid error(s), and should be able to carry this out.

Cross Reference Footnotes: See The Following Currciculum Objectives:

Same scale value appears in: 138 139 140 142 143.

Higher scale value appears in: 144 145 146 147 148 149 150 151 152 153 154 155 156 157 158 159 160 161.

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Type of Objective Skill Factor III No. 142
Skill or Knowledge Category Consequences of Error to Humans Scale Value 1.0
Occupation Radiologic Technologist Level 3
Refers to Task Code No(s).: 353

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to display an appropriate awareness of what harm can be done to self, patients, co-workers, or society as a whole, as a result of errors, even after proper training, in the performance of the following task:

1. Participating in meeting of diagnostic x-ray department technologists (Task 353).

To accomplish this, the student must be able to indicate the harm that can be done to humans at every point in the steps of the task. The student should be able to indicate what the most obvious errors during learning would be, the most serious likely error after proper training has been accomplished, what the consequences for humans would be, should be able to state what should be done to avoid error(s), and should be able to carry this out.

Cross Reference Footnotes: See The Following Curriculum Objectives:
Same scale value appears in: 138 139 140 141 143
Higher scale value appears in: 144 145 146 147 148 149 150 151 152 153 154 155 156 157 158 159 160 161.

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Type of Objective Skill Factor A No. 143

Skill or Knowledge Category Consequences of Error to Humans Scale Value 1.0

Occupation Administrative Technologist Level 3

Refers to Task Code No(s).: 76 128 129 131 165 186 272 277 294

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to display an appropriate awareness of what harm can be done to self, patients, co-workers, or society as a whole, as a result of errors, even after proper training, in the performance of the following tasks:

1. Checking supplies and ordering non-drug materials needed by department (Task 76).
2. Checking supply of narcotics or regulated drugs (or witnessing count); reordering, picking up, and restocking (Task 128).
3. Checking supply and ordering non-narcotic medicinals needed by department (Task 129).
4. Making assignments of staff to work areas, procedures, and/or MD's, and/or vacations and lunch hours (Task 131).
5. Keeping attendance records and recording or reporting excessive lateness and/or absenteeism (Task 165).
6. Orienting new staff member(s) to departmental standard operating and administrative procedures, floor plan, location of equipment and supplies, record keeping (Task 186).
7. Preparing and adjusting schedules for patient procedures (Task 272).
8. Assigning scheduled patients to procedure rooms in appropriate order (Task 277).
9. Assigning subordinate and explaining assignment to transport patient, obtain materials or documents, or assist co-worker (Task 294).

To accomplish this, the student must be able to indicate the harm that can be done to humans at every point in the steps of the task(s). The student should be able to indicate what the most obvious errors during learning would be, the most serious likely error after proper training has been accomplished, what the consequences for humans would be, should be able to state what should be done to avoid error(s), and should be able to carry this out.

Cross Reference Footnotes: See The Following Curriculum Objectives:
Same scale value appears in: 138 139 140 141 142.
Higher scale value appears in: 144 145 146 147 148 149 150 151 152 153 154 155 156 157 158 159 160 161.

CURRICULUM OBJECTIVE SHEET Page 1 of 1

Type of Objective Skill Factor IV No. 144

Skill or Knowledge Category Consequences of Error to Humans Scale Value 2.0

Occupation Patient Care Aide Level 1

Refers to Task Code No(s).: 193 283 289 292 301 490

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to display an appropriate awareness of what harm can be done to self, patients, co-workers, or society as a whole, as a result of errors, even after proper training, in the performance of the following tasks:

1. Having any patient and materials prepared for special procedure and readying patient for examination (Task 193).
2. On orders, deciding whether wound of any patient needing change of dressing needs attention of RN; changing simple dry dressing or reinforcing wet dressing (Task 283).
3. Bottle feeding a baby with pre-prepared formula (Task 289).
4. Obtaining and examining fresh stool from any patient and reporting unusual or suspicious appearance, on orders (Task 292).
5. Diapering a baby (Task 301).
6. Mummying or wrapping an infant or young pediatric patient (Task 490).

To accomplish this, the student must be able to indicate the harm that can be done to humans at every point in the steps of the task(s). The student should be able to indicate what the most obvious errors during learning would be, the most serious likely error after proper training has been accomplished, what the consequences for humans would be, should be able to state what should be done to avoid error(s), and should be able to carry this out.

Cross Reference Footnotes: See The Following Curriculum Objectives:
Lower scale value appears in: 138 139 140 141 142 143.
Same scale value appears in: 145 146 147.
Higher scale value appears in: 148 149 150 151 152 153 154 155 156 157 158 159 160 161.

CURRICULUM OBJECTIVE SHEET Page 1 of 1

Type of Objective Skill Factor IV No. 145
Skill or Knowledge Category Consequences of Error to Humans Scale Value 2.0
Occupation Patient Care Technician Level 2
Refers to Task Code No(s).: 18 156 182

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to display an appropriate awareness of what harm can be done to self, patients, co-workers, or society as a whole, as a result of errors, even after proper training, in the performance of the following tasks:

1. Drawing blood from any non-pediatric patient's vein on orders (Task 18).
2. Irrigating, cleaning, dressing or redressing any patient's wound, burn, or opening for catheter as ordered (Task 156).
3. Setting up and using suction machine to clear airway or to assist with gastric lavage (Task 182).

To accomplish this, the student must be able to indicate the harm that can be done to humans at every point in the steps of the task(s). The student should be able to indicate what the most obvious errors during learning would be, the most serious likely error after proper training has been accomplished, what the consequences for humans would be, should be able to state what should be done to avoid error(s), and should be able to carry this out.

Cross Reference Footnotes: See The Following Curriculum Objectives:
Lower scale value appears in: 138 139 140 141 142 143.
Same scale value appears in: 144 146 147.
Higher scale value appears in: 148 149 150 151 152 153 154 155 156 157 158 159 160 161.

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Type of Objective Skill Factor VI No. 146

Skill or Knowledge Category Consequences of Error to Humans Scale Value 2.0

Occupation Quality Assurance Aide Level 1

Refers to Task Code No(s).: 137 180 319

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to display an appropriate awareness of what harm can be done to self, patients, co-workers, or society as a whole, as a result of errors, even after proper training, in the performance of the following tasks:

1. Delivering prepared specimens or cultures to lab or incubator (Task 137).
2. Preparing blood samples for the laboratory (Task 180).
3. Applying print coater to photographs (Task 319).

To accomplish this, the student must be able to indicate the harm that can be done to humans at every point in the steps of the task(s). The student should be able to indicate what the most obvious errors during learning would be, the most serious likely error after proper training has been accomplished, what the consequences for humans would be, should be able to state what should be done to avoid error(s), and should be able to carry this out.

Cross Reference Footnotes: See The Following Curriculum Objectives:

Lower scale value appears in: 138 139 140 141 142 143.

Same scale value appears in: 144 145 147.

Higher scale value appears in: 148 149 150 151 152 153 154 155 156 157 158 159, 160 161.

CURRICULUM OBJECTIVE SHEET Page 1 of 1

Type of Objective Skill Factor III No. 147
Skill or Knowledge Category Consequences of Error to Humans Scale Value 2.0
Occupation Radiologic Technologist Level 3
Refers to Task Code No(s).: 466 468

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to display an appropriate awareness of what harm can be done to self, patients, co-workers, or society as a whole, as a result of errors, even after proper training, in the performance of the following tasks:

1. Taking radiographs of a pregnant patient's abdomen for fetography, amniography, placentography (Task 466).

2. Taking radiographs of a pregnant patient's pelvis for Colcher-Sussman pelvimetry (Task 468).

To accomplish this, the student must be able to indicate the harm that can be done to humans at every point in the steps of the task(s). The student should be able to indicate what the most obvious errors during learning would be, the most serious likely error after proper training has been accomplished, what the consequences for humans would be, should be able to state what should be done to avoid error(s), and should be able to carry this out.

Cross Reference Footnotes: See The Following Curriculum Objectives:
Lower scale value appears in: 138 139 140 141 142 143.
Same scale value appears in: 144 145 146.
Higher scale value appears in: 148 149 150 151 152 153 154 155 156 157 158 159 160 161.

CURRICULUM OBJECTIVE SHEET Page 1 of 1

Type of Objective Skill Factor IV No. 148
Skill or Knowledge Category Consequences of Error to Humans Scale Value 3.0
Occupation Patient Care Aide Level 1
Refers to Task Code No(s).: 138 153 166 295

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to display an appropriate awareness of what harm can be done to self, patients, co-workers, or society as a whole, as a result of errors, even after proper training, in the performance of the following tasks:

1. Reporting observed symptoms and concerns of any patient to physician or staff member (Task 138).
2. Assisting physician or co-worker in special examination or treatment procedures (Task 153).
3. Using isolation and decontamination techniques to prepare examination or treatment room or area and clean up afterwards for patient with infectious or communicable condition (Task 166).
4. Participating in meeting of nursing personnel in x-ray department (Task 295).

To accomplish this, the student must be able to indicate the harm that can be done to humans at every point in the steps of the task(s). The student should be able to indicate what the most obvious errors during learning would be, should be able to state what should be done to avoid error(s), and should be able to carry this out.

Cross Reference Footnotes: See The Following Curriculum Objectives:
Lower scale value appears in: 138 139 140 141 142 143 144 145 146 147.
Same scale value appears in: 149 150 151 152.
Higher scale value appears in: 153 154 155 156 157 158 159 160 161.

CURRICULUM OBJECTIVE SHEET Page 1 of 1

Type of Objective Skill Factor IV No. 149
Skill or Knowledge Category Consequences of Error to Humans Scale Value 3.0
Occupation Patient Care Technician Level 2
Refers to Task Code No(s).: 33 143 181 185 243

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to display an appropriate awareness of what harm can be done to self, patients, co-workers, or society as a whole, as a result of errors, even after proper training, in the performance of the following tasks:

1. Removing any patient's sutures (Task 33).
2. Catheterizing any female urethra as ordered (Task 143).
3. Catheterizing any male or female patient's urethra with retention balloon catheter (Task 181).
4. Administering oxygen from portable or piped outlet unit using oronasal or nasal mask according to MD's orders (Task 185).
5. Restraining any patient (Task 243).

To accomplish this, the student must be able to indicate the harm that can be done to humans at every point in the steps of the task(s). The student should be able to indicate what the most obvious errors during learning would be, the most serious likely error after proper training has been accomplished, what the consequences for humans would be, should be able to state what should be done to avoid error(s), and should be able to carry this out.

Cross Reference Footnotes: See The Following Curriculum Objectives:
Lower scale value appears in: 138 139 140 141 142 143 144 145 146 147.
Same scale value appears in: 148 150 151 152.
Higher scale value appears in: 153 154 155 156 157 158 159 160 161.

CURRICULUM OBJECTIVE SHEET Page 1 of 1

Type of Objective Skill Factor VI No. 150
Skill or Knowledge Category Consequences of Error to Humans Scale Value 3.0
Occupation Quality Assurance Aide Level 1
Refers to Task Code No(s).: 70 79

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to display an appropriate awareness of what harm can be done to self, patients, co-workers, or society as a whole, as a result of errors, even after proper training, in the performance of the following tasks:

1. Inspecting, cleaning, and readying x-ray film hand processing equipment for use (Task 70).

2. Preparing barium sulfate contrast medium as ordered or for standard use (Task 79).

To accomplish this, the student must be able to indicate the harm that can be done to humans at every point in the steps of the task(s). The student should be able to indicate what the most obvious errors during learning would be, the most serious likely error after proper training ha[illegible] accomplished, what the consequences for humans would be, should be [illegible] to state what should be done to avoid error(s), and should be able [illegible] this out.

Cross Reference Footnotes: See The Following Curriculum Objectives:
Lower scale value appears in: 138 139 140 141 142 143 144 145 146 147.
Same scale value appears in: 148 149 151 152.
Higher scale value appears in: 153 154 155 156 157 158 159 160 161.

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Type of Objective Skill Factor VI No. 151
Skill or Knowledge Category Consequences of Error to Humans Scale Value 3.0
Occupation Quality Assurance Technician Level 2
Refers to Task Code No(s).: 276 527 529 530 534 549

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to display an appropriate awareness of what harm can be done to self, patients, co-workers, or society as a whole, as a result of errors, even after proper training, in the performance of the following tasks:

1. Making minor adjustments or repair on automatic x-ray film processor (Task 276).
2. Retrieving, displaying, and making photographs, printouts and/or magnetic tape records of computerized transverse axial tomographic (C.T.T.) scans (Task 527).
3. Checking x-ray field limitation, x-ray receptor and light field alignment, minimum TOD, TFD, and field size indicators for diagnostic x-ray equipment (Task 529).
4. Checking fluoroscopic and spot film x-ray field limitation, x-ray field and image receptor alignment, maximum TID, minimum TOD, and other requirements (Task 530).
5. Providing visual and radiographic or fluoroscopic inspection of personnel shielding devices such as leaded gloves, aprons, sheets, gonadal shields (Task 534).
6. Checking the leakage radiation rate from the source assembly of diagnostic x-ray equipment (Task 549).

To accomplish this, the student must be able to indicate the harm that can be done to humans at every point in the steps of the task(s). The student should be able to indicate what the most obvious errors during learning would be, the most serious likely error after proper training has been accomplished, what the consequences for humans would be, should be able to state what should be done to avoid error(s), and should be able to carry this out.

Cross Reference Footnotes: See The Following Curriculum Objectives:
Lower scale value appears in: 138 139 140 141 142 143 144 145 146 147.
Same scale value appears in: 148 149 150 152.
Higher scale value appears in: 153 154 155 156 157 158 159 160 161.

CURRICULUM OBJECTIVE SHEET Page 1 of 1

Type of Objective Skill Factor III No. 152
Skill or Knowledge Category Consequences of Error to Humans Scale Value 3.0
Occupation Radiologic Technologist Level 3
Refers to Task Code No(s).: 369 467

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to display an appropriate awareness of what harm can be done to self, patients, co-workers, or society as a whole, as a result of errors, even after proper training, in the performance of the following tasks:

1. Preparing, transporting, setting up and returning mobile portable radiography equipment for bedside radiography (Task 369).

2. Taking radiographs of a pregnant patient's uterus for intra-uterine transfusion (Task 467).

To accomplish this, the student must be able to indicate the harm that can be done to humans at every point in the steps of the task(s). The student should be able to indicate what the most obvious errors during learning would be, the most serious likely error after proper training has been accomplished, what the consequences for humans would be, should be able to state what should be done to avoid error(s), and should be able to carry this out.

Cross Reference Footnotes: See The Following Curriculum Objectives:
Lower scale value appears in: 138 139 140 141 142 143 144 145 146 147.
Same scale value appears in: 148 149 150 151.
Higher scale value appears in: 153 154 155 156 157 158 159 160 161.

CURRICULUM OBJECTIVE SHEET Page 1 of 1

Type of Objective Skill Factor IV No. 153
Skill or Knowledge Category Consequences of Error to Humans Scale Value 5.5
Occupation Patient Care Aide Level 1
Refers to Task Code No(s).: 190 282 521

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to display an appropriate awareness of what harm can be done to self, patients, co-workers, or society as a whole, as a result of errors, even after proper training, in the performance of the following tasks:

1. Assisting patient to or from wheelchair, stretcher, bed, or table, and/or transporting patient to designated area (Task 190).
2. Escorting adult out-patients to and/or from dressing rooms, treatment rooms, and/or waiting areas (Task 282).
3. Applying digital or manual pressure to any patient's arterial or venous puncture site as ordered (Task 521).

To accomplish this, the student must be able to indicate the harm that can be done to humans at every point in the steps of the task(s). The student should be able to indicate what the most obvious errors during learning would be, the most serious likely error after proper training has been accomplished, what the consequences for humans would be, should be able to state what should be done to avoid error(s), and should be able to carry this out.

Cross Reference Footnotes: See The Following Curriculum Objectives:
Lower scale value appears in: 138 139 140 141 142 143 144 145 146 147 148 149 150 151 152.
Same scale value appears in: 154 155 156 157.
Higher scale value appears in: 158 159 160 161.

CURRICULUM OBJECTIVE SHEET Page 1 of 1

Type of Objective Skill Factor IV No. 154

Skill or Knowledge Category Consequences of Error to Humans Scale Value 5.5

Occupation Patient Care Technician Level 2

Refers to Task Code No(s).: 65 280 296 298 299 522

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to display an appropriate awareness of what harm can be done to self, patients, co-workers, or society as a whole, as a result of errors, even after proper training, in the performance of the following tasks:

1. Preparing specimens such as extravascular body fluids, washings, cell and/or tissue biopsies for transportation to laboratory (Task 65).
2. Participating in monitoring of personal exposure to radiation by periodically turning in and replacing film strip in badge worn by performer (Task 280).
3. Providing first aid in x-ray department emergency (Task 296).
4. Administering medication orally to any patient according to MD's orders (Task 298).
5. Administering subcutaneous or intramuscular injection for any patient according to MD's orders (Task 299).
6. Applying pressure dressing to arterial or venous puncture site (Task 522).

To accomplish this, the student must be able to indicate the harm that can be done to humans at every point in the steps of the task(s). The student should be able to indicate what the most obvious errors during learning would be, the most serious likely error after proper training has been accomplished, what the consequences for humans would be, should be able to state what should be done to avoid error(s), and should be able to carry this out.

Cross Reference Footnotes: See The Following Curriculum Objectives:
Lower scale value appears in: 138 139 140 141 142 143 144 145 146 147 148 149 150 151 152.
Same scale value appears in: 153 154 155 156 157.
Higher scale value appears in: 158 159 160 161.

CURRICULUM OBJECTIVE SHEET Page 1 of 1

Type of Objective Skill Factor VI No. 155

Skill or Knowledge Category Consequences of Error to Humans Scale Value 5.5

Occupation Quality Assurance Aide Level 1

Refers to Task Code No(s).: 69 71 80 192 273 304 551 552

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to display an appropriate awareness of what harm can be done to self, patients, co-workers, or society as a whole, as a result of errors, even after proper training, in the performance of the following tasks:

1. Processing exposed x-ray film in automatic processor (Task 69).
2. Processing exposed x-ray film manually (Task 71).
3. Preparing materials or trays with medications and materials for special treatments or procedures according to standard orders (Task 80).
4. Inspecting, checking, preparing xeroradiography equipment for use (Task 192).
5. Cleaning, inspecting, and readying automatic x-ray film processor(s) for use (Task 273).
6. Readying emergency cart (Task 304).
7. Preparing personnel radiation monitoring dosimetric film or TLD badges and distributing (Task 551).
8. Collecting and/or distributing personnel monitoring dosimetric badge inserts and preparing for outside or in-house processing and reading (Task 552).

To accomplish this, the student must be able to indicate the harm that can be done to humans at every point in the steps of the task(s). The student should be able to indicate what the most obvious errors during learning would be, the most serious likely error after proper training has been accomplished, what the consequences for humans would be, should be able to state what should be done to avoid error(s), and should be able to carry this out.

Cross Reference Footnotes: See The Following Currciculum Objectives:

Lower scale value appears in: 138 139 140 141 142 143 144 145 146 147 148 149 150 151 152.

Same scale value appears in: 153 154 156 157.

Higher scale value appears in: 158 159 160 161.

CURRICULUM OBJECTIVE SHEET Page 1 of 2

Type of Objective Skill Factor VI No. 156
Skill or Knowledge Category Consequences of Error to Humans Scale Value 5.5
Occupation Quality Assurance Technician Level 2
Refers to Task Code No(s).: 178 280 523 524 525 531 532 533 536 537 538 539 544 553 554 556

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to display an appropriate awareness of what harm can be done to self, patients, co-workers, or society as a whole, as a result of errors, even after proper training, in the performance of the following tasks:

1. Checking, preparing fluoroscope controls (and phototimer) (Task 178).
2. Participating in monitoring of personal exposure to radiation by periodically turning in and replacing film strip in badge worn by performer (Task 280).
3. Preparing computerized transverse axial tomography (C.T.T.) equipment for use (Task 523).
4. Providing preventive maintenance for display tube surface, camera, disc and/or tape drive units, and/or scanning assembly (especially water-using head box assembly) of computerized transverse axial tomography (C.T.T.) equipment (Task 524).
5. Checking calibration and accuracy of C.T.T. equipment by making test scans (Task 525).
6. Testing whether diagnostic x-ray tube overload protection and/or effective focal spot size meet acceptable standards (Task 531).
7. Checking and/or performing direct calibration tests of diagnostic radiography equipment exposure timers (Task 532).
8. Checking automatic exposure termination of diagnostic radiography equipment (Task 533).
9. Providing visual and/or manual inspection of diagnostic radiography system (Task 536).
10. Checking diagnostic tomography x-ray equipment for mechanical operation, fulcrum position, resolution, exposure uniformity, and/or grid alignment (Task 537).
11. Estimating HVL and checking adequacy of filtration of diagnostic x-ray equipment (Task 538).
12. Checking bucky grid alignment and/or centering in diagnostic radiography equipment (Task 539).

CURRICULUM OBJECTIVE SHEET (continued) Page 2 of 2

Type of Objective Skill Factor VI No. 156

Skill or Knowledge Cagegory Consequences of Error to Humans Scale Value 5.5

Content Continued

13. Determining exposure characteristics of x-ray and/or dosimetric films (Task 544).

14. Reading and recording exposure from personnel monitoring film or thermoluminescent dosimeters (Task 553).

15. Entering, evaluating occupational radiation exposure data and initiating action on dangerous levels (Task 554).

16. Calibrating diagnostic x-ray test, survey, or measuring instruments (Task 556).

To accomplish this, the student must be able to indicate the harm that can be done to humans at every point in the steps of the task(s). The student should be able to indicate what the most obvious errors during learning would be, the most serious likely error after proper training has been accomplished, what the consequences for humans would be, should be able to state what should be done to avoid errors, and should be able to carry this out.

Cross Reference Footnotes: See The Following Curriculum Objectives:
Lower scale value appears in: 138 139 140 141 142 143 144 145 146 147 148 149 150 151 152.
Same scale value appears in: 153 154 155 157.
Higher scale value appears in: 158 159 160 161.

CURRICULUM OBJECTIVE SHEET Page 1 of 2

Type of Objective Skill Factor III No. 157
Skill or Knowledge Category Consequences of Error to Humans Scale Value 5.5
Occupation Radiologic Technologist Level 3
Refers to Task Code No(s).: 81 280 355 356 357 358 359 362 364 371 377 378 379 381 382 384 385 386 514 516 526

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to display an appropriate awareness of what harm can be done to self, patients, co-workers, or society as a whole, as a result of errors, even after proper training, in the performance of the following tasks:

1. Providing technical quality review of "plain film" radiographs (Task 81).
2. Participating in monitoring of personal exposure to radiation by periodically turning in and replacing film strip in badge worn by performer (Task 280).
3. Taking plain film radiographs of fingers, hand(s) or wrist(s) of non-infant patient (Task 355).
4. Taking plain film radiographs of forearm and/or elbow joint of non-infant patient (Task 356).
5. Taking plain film radiographs of humerus and/or shoulder girdle of non-infant patient (Task 357).
6. Taking plain film radiographs of toes, foot and/or ankle joint of non-pediatric patient (Task 358).
7. Taking plain film radiographs of leg(s), knee(s) and/or femur(s) of non-infant patient (Task 359).
8. Taking plain film radiographs of sternum, ribs and/or thoracic viscera of non-infant patient (Task 362).
9. Taking radiographs of anterior portion of the neck of non-infant patient (Task 364).
10. Taking operative cholangiograms, pancreatograms or similar operative radiographs of any patient (Task 371).
11. Taking positive contrast arthrograms (especially of knee) of any patient (Task 377).
12. Taking bronchograms of a non-pediatric patient (Task 378).
13. Carrying out radiologic technology for bronchoscopy or needle lung biopsy of a non-pediatric patient (Task 379).
14. Taking upper GI radiographs of non-pediatric patient (Task 381).

CURRICULUM OBJECTIVE SHEET (continued) Page 2 of 2

Type of Objective Skill Factor III No. 157

Skill or Knowledge Cagegory Consequences of Error to Humans Scale Value 5.5

Content Continued

15. Taking small intestine intubation radiographs of a non-pediatric patient (Task 382).

16. Taking oral cholecystograms and cholangiograms of non-infant patient (Task 384).

17. Taking intravenous cholangiograms and cholecystograms of non-infant patient (Task 385).

18. Taking percutaneous or T-tube cholangiograms of non-infant patient (Task 386).

19. Taking selective thyroid angiograms of any patient (Task 514).

20. Taking percutaneous splenoportograms of any patient (Task 516).

21. Taking computerized transverse axial tomographic (C.T.T.) scans of any patient (Task 526).

To accomplish this, the student must be able to indicate the harm that can be done to humans at every point in the steps of the task(s). The student should be able to indicate what the most obvious errors during learning would be, the most serious likely error after proper training has been accomplished, what the consequences for humans would be, should be able to state what should be done to avoid error(s), and should be able to carry this out.

Cross Reference Footnotes: See The Following Curriculum Objectives:

Lower scale value appears in: 138 139 140 141 142 143 144 145 146 147 148 149 150 151 152.

Same scale value appears in: 153 154 155 156.

Higher scale value appears in: 158 159 160 161.

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Type of Objective Skill Factor IV No. 158

Skill or Knowledge Category Consequences of Error to Humans Scale Value 7.0

Occupation Patient Care Aide Level 1

Refers to Task Code No(s).: 271

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to display an appropriate awareness of what harm can be done to self, patients, co-workers, or society as a whole, as a result of errors, even after proper training, in the performance of the following task:

1. Deciding whether to call staff person to evaluate whether unusual ECG reading is artifact, or calling physician in case of serious patient distress (Task 271).

To accomplish this, the student must be able to indicate the harm that can be done to humans at every point in the steps of the task. The student should be able to indicate what the most obvious errors during learning would be, the most serious likely error after proper training has been accomplished, what the consequences for humans would be, should be able to state what should be done to avoid error(s), and should be able to carry this out.

Cross Reference Footnotes: See The Following Curriculum Objectives:

Lower scale value appears in: 138 139 140 141 142 143 144 145 146 147 148 149 150 151 152 153 154 155 156 157.

Same scale value appears in: 159 160 161.

CURRICULUM OBJECTIVE SHEET   Page 1 of 1

Type of Objective Skill Factor IV No. 159

Skill or Knowledge Category Consequences of Error to Humans Scale Value 7.0

Occupation Patient Care Technician Level 2

Refers to Task Code No(s).: 308

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to display an appropriate awareness of what harm can be done to self, patients, co-workers, or society as a whole, as a result of errors, even after proper training, in the performance of the following task:

1. Setting up and monitoring any patient's electrocardiogram during special procedure (Task 308).

To accomplish this, the student must be able to indicate the harm that can be done to humans at every point in the steps of the task. The student should be able to indicate what the most obvious errors during learning would be, the most serious likely error after proper training has been accomplished, what the consequences for humans would be, should be able to state what should be done to avoid error(s), and should be able to carry this out.

Cross Reference Footnotes: See The Following Curriculum Objectives:
Lower scale value appears in: 138 139 140 141 142 143 144 145 146 147 148 149 150 151 152 153 154 155 156 157.
Same scale value appears in: 158 160 161.

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Type of Objective Skill Factor VI No. 160
Skill or Knowledge Category Consequences of Error to Humans Scale Value 7.0
Occupation Quality Assurance Technician Level 2
Refers to Task Code No(s).: 535 540 543 545 548 550

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to display an appropriate awareness of what harm can be done to self, patients, co-workers, or society as a whole, as a result of errors, even after proper training, in the performance of the following tasks:

1. Performing calibration tests of kVp, mA, mAs, exposure rates, reproducibility on diagnostic radiography equipment using direct measuring instruments and/or radiographic comparisons (Task 535).

2. Checking fluoroscopic automatic brightness control system and/or focus, resolution, and distortion of the optical system (Task 540).

3. Monitoring and evaluating x-ray film processors (Task 543).

4. Monitoring patient exposure rates for routine diagnostic x-ray procedures (Task 545).

5. Checking maximum entrance exposure rate and primary barrier transmitted radiation rate for fluoroscopic equipment (Task 548).

6. Conducting protection survey of stray radiation within diagnostic x-ray installation and transmission across primary and secondary protective barriers (Task 550).

To accomplish this, the student must be able to indicate the harm that can be done to humans at every point in the steps of the task(s). The student should be able to indicate what the most obvious errors during learning would be, the most serious likely error after proper training has been accomplished, what the consequences for humans would be, should be able to state what should be done to avoid error(s), and should be able to carry this out.

Cross Reference Footnotes: See The Following Curriculum Objectives:
Lower scale value appears in: 138 139 140 141 142 143 144 145 146 147 148 149 150 151 152 153 154 155 156 157.
Same scale value appears in: 158 159 161 and level 5.

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Type of Objective Skill Factor III No. 161
Skill or Knowledge Category Consequences of Error to Humans Scale Value 7.0
Occupation Radiologic Technologist Level 3
Refers to Task Code No(s).: 360 361 363 365 366 367 368 370 372 373 374 375 376 380 383 387 388 389 390 463 464 465 491 492 493 494 495 496 497 498 499 500 501 502 503 504 505 506 507 508 509 510 511 512 513 515 517 518 519
Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to display an appropriate awareness of what harm can be done to self, patients, co-workers, or society as a whole, as a result of errors, even after proper training, in the performance of the following tasks:

1. Taking plain film radiographs of pelvis, hips and/or upper femora of non-infant patient (Task 360).
2. Taking plain film radiographs of vertebral column of non-infant patient (Task 361).
3. Taking plain film radiographs of abdominal contents of non-infant patient (Task 363).
4. Taking plain film radiographs of the skull and/or face of non-infant patient (Task 365).
5. Taking plain film radiographs of the paranasal sinuses of a non-infant patient (Task 366).
6. Taking preliminary localization radiographs of foreign bodies in orbit or eye of non-infant patient (Task 367).
7. Taking mammograms (radiography or xeroradiography) of non-infant patient (Task 368).
8. Taking operative orthopedic radiographs of any patient (such as in hip pinning) (Task 370).
9. Taking intravisceral or isolated operating room radiographs of any patient (Task 372).
10. Taking operating room radiographs for opaque foreign body search (Task 373).
11. Taking tomograms of non-infant patient (Task 374).
12. Taking sialograms of any patient (Task 375).
13. Taking lymphangiograms or lymphadenograms of any patient (Task 376).
14. Providing technical assistance for laryngography or cleft palate study of any patient (or any similar fluoroscopic examination including spot filming and/or cineradiography) (Task 380).

CURRICULUM OBJECTIVE SHEET (continued)

Type of Objective Skill Factor III No. 161
Skill or Knowledge Cagegory Consequences of Error to Humans Scale Value 7.0

Content Continued

15. Taking barium enema radiographs of non-pediatric patient (Task 383).

16. Taking intravenous pyelograms and urograms of non-pediatric patient (Task 387).

17. Taking infusion nephrotomograms of any patient (Task 388).

18. Taking percutaneous antegrade or renal cyst pyelograms of non-infant patient (Task 389).

19. Taking cystograms and voiding cystourethrograms of any patient (Task 390).

20. Taking retrograde pyelograms and ureterograms of non-pediatric patient (Task 463).

21. Providing technical assistance for an examination of any patient requiring fluoroscopic control and spot filming (Task 464).

22. Taking pelvic pneumograms and/or hysterosalpingograms of non-pediatric female patient (Task 465).

23. Taking plain film radiographs of the skull of infant patient (Task 491).

24. Taking plain film radiographs of vertebral column of infant patient (Task 492).

25. Taking plain film radiographs of the upper extremities of infant patient (Task 493).

26. Taking radiographs of neck, chest of infant patient (Task 494).

27. Taking plain film radiographs of abdomen of infant patient (Task 495).

28. Taking plain film radiographs of the lower extremities of infant or pediatric patient (Task 496).

29. Taking radiographs for choanal atresia study of infant patient (Task 497).

30 Taking bronchograms of a pediatric patient (Task 498).

31. Taking upper GI radiographs of pediatric patient (Task 499).

32. Taking barium enema, intussusception or defecography radiographs of pediatric patient (Task 500).

33. Taking percutaneous peritoneograms/herniograms of pediatric patient (Task 501).

CURRICULUM OBJECTIVE SHEET (continued) Page 3 of 4

Type of Objective Skill Factor III No. 161

Skill or Knowledge Cagegory Consequences of Error to Humans Scale Value 7.0

Content Continued

34. Taking excretory intravenous inferior vena cavograms and urograms of pediatric patient (Task 502).

35. Taking genitograms or fistulograms of any patient for intersex, external fistula or sinus tract examination (Task 503).

36. Taking cerebral angiograms or venograms of any patient (Task 504).

37. Taking pneumoencephalograms or brain ventriculograms of any patient (Task 505).

38. Taking positive contrast spinal or posterior fossa myelograms of any patient (Task 506).

39. Taking diskograms of any patient (Task 507).

40. Taking air or gas contrast myelograms of any patient (Task 508).

41. Taking spinal cord angiograms of any patient (Task 509).

42. Taking peripheral angiograms of any patient (Task 510).

43. Taking catheter thoracic and/or abdominal aortograms of any patient, and/or selective visceral arteriograms (bronchial or abdominal) (Task 511).

44. Taking selective pelvic angiograms of non-pediatric gravid or non-gravid female patient (Task 512).

45. Taking intravenous angiocardiograms of any patient (Task 513).

46. Taking catheter inferior vena cavograms and/or renal or adrenal venograms of non-infant patient (Task 515).

47. Taking selective subclavian arteriograms of non-pediatric patient for thoracic outlet syndrome evaluation (Task 517).

48. Taking selective pulmonary angiograms or selective angiocardiograms of any patient (Task 518).

49. Taking percutaneous coronary arteriograms and/or left ventriculograms of any patient (Task 519).

CURRICULUM OBJECTIVE SHEET (continued) Page 4 of 4

Type of Objective Skill Factor III No. 161

Skill or Knowledge Cagegory Consequences of Error to Humans Scale Value 7.0

Content Continued

To accomplish this, the student must be able to indicate the harm that can be done to humans at every point in the steps of the task(s). The student should be able to indicate what the most obvious errors during learning would be, the most serious likely error after proper training has been accomplished, what the consequences for humans would be, should be able to state what should be done to avoid error(s), and should be able to carry this out.

Cross Reference Footnotes: See The Following Curriculum Objectives:

Lower scale value appears in: 138 139 140 141 142 143 144 145 146 147 148 149 150 151 152 153 154 155 156 157.

Same scale value appears in: 158 159 160 and levels 4 and 5.

CURRICULUM OBJECTIVE SHEET Page 1 of 1

Type of Objective Knowledge Factor III No. 162
Skill or Knowledge Category 11731000 Scale Value 2.5
Occupation Radiologic Technologist Level 3
Refers to Task Code No(s).: 353 362 363 368 371 376 378 381 382 383 384 385 386 387 388 389 390 463 465 496 500 501 502 503 511 512 513 515 518 519

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to demonstrate mastery of the following subject area

Normal Structure and Function (human anatomy and physiology; an overview of the nature of normal structure, function, and/or interrelationships of systems and processes)

at a level of awareness and depth of understanding adequate to the proper performance of the following activities:

1. In participating in meeting of diagnostic x-ray department technologists, being able to comprehend, raise issues, or participate in any discussion requiring an overview of normal human anatomy and physiology as it relates to radiographic examinations, use of equipment, or patient care (Task 353).

2. Applying information about normal structure and function to take account of patient's size, sex, body type, muscularity or other tissue characteristics in relation to centering, positioning of patient, selection of film size, and selection of technical factors for radiographic examination requested (all tasks listed except 353).

To accomplish these activities the student must have a detailed knowledge of the subject category, covering the appropriate technical or special terms, facts, equipment, and/or procedures which are part of this discipline and are required for successful completion of the activities listed above.

Cross Reference Footnote:
Higher scale value appears in level 4.

CURRICULUM OBJECTIVE SHEET   Page 1 of 1

Type of Objective Knowledge Factor III No. 163
Skill or Knowledge Category 11731100 Scale Value 2.5
Occupation Radiologic Technologist Level 3
Refers to Task Code No(s).: 372 464

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to demonstrate mastery of the following subject area

Regional Anatomy (includes head and neck, thorax and abdomen, pelvis and perineum, lower and upper limbs, and skeleton; internal structure and connections between major parts, systems, and sections of the body)

at a level of awareness and depth of understanding adequate to the proper performance of the following activities:

1. In taking intravisceral or isolated operating room radiographs, considering the area of the body indicated on requisition in terms of patient's size, sex, body type, muscularity in order to select technical factors and film size (Task 372).

2. In assisting with fluoroscopy and spot filming, considering the part of the body involved in order to prepare equipment and preselect fluoroscopic and spot film technique (Task 464).

To accomplish these activities the student must have a detailed knowledge of the subject category, covering the appropriate technical or special terms, facts, equipment, and/or procedures which are part of this discipline and are required for successful completion of the activities listed above.

Cross Reference Footnotes: See The Following Curriculum Objectives:
Higher scale value appears in: 164 165 166 167 168.

CURRICULUM OBJECTIVE SHEET Page 1 of 1

Type of Objective Knowledge Factor VI No. 164
Skill or Knowledge Category 11731100 Scale Value 3.5
Occupation Quality Assurance Technician Level 2
Refers to Task Code No(s).: 78 527

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to demonstrate mastery of the following subject area

Regional Anatomy (includes head and neck, thorax and abdomen, pelvis and perineum, lower and upper limbs, and skeleton; internal structure and connections between major parts, systems, and sections of the body)

at a level of awareness and depth of understanding adequate to the proper performance of the following activities:

1. In checking and jacketing patients' radiographs, being able to match requisition with the area demonstrated on radiographs and right or left designation when information is missing (Task 78).

2. In retrieving, displaying and copying computerized transverse axial scans, being able to select display controls so that picture demonstrates the area of interest requested with appropriately sharp density gradation for the tissues in the area of interest (Task 527).

To accomplish these activities the student must have a detailed knowledge of the subject category, covering the appropriate technical or special terms, facts, equipment, and/or procedures which are part of this discipline and are required for successful completion of the activities listed above.

Cross Reference Footnotes: See The Following Curriculum Objectives:
Lower scale value appears in: 163.
Same scale value appears in: 165.
Higher scale value appears in: 166 167 168.

CURRICULUM OBJECTIVE SHEET Page 1 of 1

Type of Objective Knowledge **Factor** III **No.** 165
Skill or Knowledge Category 11731100 **Scale Value** 3.5
Occupation Radiologic Technologist **Level** 3
Refers to Task Code No(s).: 355 356 357 358 359 360 361 362 363 364 365 366 367 368 370 371 373 375 376 377 378 379 380 381 382 383 384 385 386 387 388 389 390 463 465 466 467 468 491 492 493 494 495 496 497 498 499 500 (*continued below)
Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to demonstrate mastery of the following subject area

Regional Anatomy (includes head and neck, thorax and abdomen, pelvis and perineum, lower and upper limbs, and skeleton; internal structure and connections between major parts, systems, and sections of the body).

at a level of awareness and depth of understanding adequate to the proper performance of the following activities:

1. After reading requisition sheet indicating area of interest, being able to select appropriate film size, patient positions and centering to demonstrate the part of the body involved; being able to consider internal structures in relation to patient positions, taking account of patient's age, sex, size and body type as appropriate for the area of interest (all tasks listed).

2. Considering appropriate shielding for radiosensitive tissue by considering the direction of the central ray and the proximity of tissues in the area of interest to radiosensitive tissues (all tasks listed).

3. Positioning patient in relation to film and x-ray beam to obtain views requested; selecting technical factors appropriate to the area of interest and tissue type involved (all tasks listed).

To accomplish these activities the student must have a detailed knowledge of the subject category, covering the appropriate technical or special terms, facts, equipment, and/or procedures which are part of this discipline and are required for successful completion of the activities listed above.

Cross Reference Footnotes: See The Following Curriculum Objectives:
Lower scale value appears in: 163
Same scale value appears in: 164.
Higher scale value appears in: 166 167 168.

* 501 502 503 504 505 506 507 508 509 510 511 512 513 514 515 516 517 518 519.

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Type of Objective Knowledge Factor VI No. 166
Skill or Knowledge Category 11731100 Scale Value 5.5
Occupation Quality Assurance Technician Level 2
Refers to Task Code No(s).: 545

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to demonstrate mastery of the following subject area

Regional Anatomy (includes head and neck, thorax and abdomen, pelvis and perineum, lower and upper limbs, and skeleton; internal structure and connections between major parts, systems, and sections of the body)

at a level of awareness and depth of understanding adequate to the proper performance of the following activities:

1. In monitoring patient exposure rates for routine diagnostic x-ray procedures, being able to take account of the areas of interest and standard positions in relation to modality, accessories, and technical factors; considering use of shielding in relation to areas of interest (Task 545).

To accomplish these activities the student must have a detailed knowledge of the subject category, covering the appropriate technical or special terms, facts, equipment, and/or procedures which are part of this discipline and are required for successful completion of the activities listed above.

Cross Reference Footnotes: See The Following Curriculum Objectives:
Lower scale value appears in: 163 164 165.
Same scale value appears in: 167 and level 5.
Higher scale value appears in: 168.

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Type of Objective Knowledge Factor VI No. 167
Skill or Knowledge Category 11731100 Scale Value 5.5
Occupation Radiologic Technologist Level 3
Refers to Task Code No(s).: 81 374 526

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to demonstrate mastery of the following subject area

Regional Anatomy (includes head and neck, thorax and abdomen, pelvis and perineum, lower and upper limbs, and skeleton; internal structure and connections between major parts, systems, and sections of the body)

at a level of awareness and depth of understanding adequate to the proper performance of the following activities:

1. In providing technical quality reviews of "plain film" radiographs, being able to evaluate whether the area of the body is properly demonstrated for diagnostic purposes given the area of interest, requisition sheet, and appearance of images in relation to appropriate standards of detail, definition, sharpness, inclusion and exclusion requirements for the examination (Task 81).

2. In taking tomograms of a patient, being able to read requisition sheet and consider for the area of interest the effect of patient's body type, size, tissue type and sex on selection of film size, technique, patient positions, shielding of radiosensitive tissues adjacent to area of interest, as well as centering, localization of tumor,and selection of layer height and amplitude (Task 374).

3. In taking computerized transverse axial scans, being able to read requisition sheet and, from area of interest,be able to select technical factors, scan level, shielding; being able to select display controls so that picture demonstrates the area of interest requested with appropriately sharp density gradation for the tissues in the area of interest (Task 526).

To accomplish these activities the student must have a detailed knowledge of the subject category, covering the appropriate technical or special terms, facts, equipment, and/or procedures which are part of this discipline and are required for successful completion of the activities listed above.

Cross Reference Footnotes: See The Following Curriculum Objectives:
Lower scale value appears in: 163 164 165.
Same scale value appears in: 167.
Higher scale value appears in: 168.

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Type of Objective Knowledge Factor III No. 168

Skill or Knowledge Category 11731100 Scale Value 7.0

Occupation Radiologic Technologist Level 3

Refers to Task Code No(s).: 353

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to demonstrate mastery of the following subject area

Regional Anatomy (includes head and neck, thorax and abdomen, pelvis and perineum, lower and upper limbs, and skeleton; internal structure and connections between major parts, systems, and sections of the body)

at a level of awareness and depth of understanding adequate to the proper performance of the following activities:

1. In meeting of diagnostic x-ray department, being able to raise issues, comprehend and participate in discussions dealing with patient care, positioning, shielding, new equipment, examination procedures that involve specific regions of the body, internal structures, and connections between parts, sections, and systems of the body (Task 353).

To accomplish these activities the student must have a detailed knowledge of the subject category, covering the appropriate technical or special terms, facts, equipment, and/or procedures which are part of this discipline and are required for successful completion of the activities listed above.

Cross Reference Footnotes: See The Following Curriculum Objectives:

Lower scale value appears in: 163 164 165 166 167.

Same scale value appears in level 4.

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Type of Objective Knowledge **Factor** IV **No.** 169
Skill or Knowledge Category 11731200 **Scale Value** 1.5
Occupation Patient Care Aide **Level** 1
Refers to Task Code No(s).: 199 262 520

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to demonstrate mastery of the following subject area

Topographic Anatomy (relation of external physical manifestations to internal structure and function of parts of the body

at a level of awareness and depth of understanding adequate to the proper performance of the following activities:

1. In taking vital signs,being able to locate pressure points for pulse, blood pressure (Task 199).
2. In taking ECG or preparing patient for ECG monitoring, being able to locate appropriate points for placement of electrodes (Tasks 262, 520).

To accomplish these activities the student must have a detailed knowledge of the subject category, covering the appropriate technical or special terms, facts, equipment, and/or procedures which are part of this discipline and are required for successful completion of the activities listed above.

Cross Reference Footnotes: See The Following Curriculum Objectives:
Same scale value appears in: 170 171.
Higher scale value appears in: 172 173 174 175 176.

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Type of Objective Knowledge Factor IV No. 170
Skill or Knowledge Category 11731200 Scale Value 1.5
Occupation Patient Care Technician Level 2
Refers to Task Code No(s).: 18 308

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to demonstrate mastery of the following subject area

Topographic Anatomy (relation of external physical manifestations to internal structure and function of parts of the body)

at a level of awareness and depth of understanding adequate to the proper performance of the following activities:

1. In drawing sample of venous blood, being able to select appropriate site (Task 18).

2. In setting up patient for ECG, being able to locate appropriate points for placement of electrodes (Task 308).

To accomplish these activities the student must have a detailed knowledge of the subject category, covering the appropriate technical or special terms, facts, equipment, and/or procedures which are part of this discipline and are required for successful completion of the activities listed above.

Cross Reference Footnotes: See The Following Curriculum Objectives:
Same scale value appears in: 169 171.
Higher scale value appears in: 172 173 174 175 176.

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Type of Objective Knowledge Factor III No. 171

Skill or Knowledge Category 11731200 Scale Value 1.5

Occupation Radiologic Technologist Level 3

Refers to Task Code No(s).: 373

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to demonstrate mastery of the following subject area

Topographic Anatomy (relation of external physical manifestations to internal structure and function of parts of the body)

at a level of awareness and depth of understanding adequate to the proper performance of the following activities:

1. In taking operating room radiographs for opaque foreign body search, being able to designate external reference points for shielding, centering film and x-ray tube, and collimating, or indicating to staff what to do (Task 373).

To accomplish these activities the student must have a detailed knowledge of the subject category, covering the appropriate technical or special terms, facts, equipment, and/or procedures which are part of this discipline and are required for successful completion of the activities listed above.

Cross Reference Footnotes: See The Following Curriculum Objectives:

Same scale value appears in: 169 170.

Higher scale value appears in: 172 173 174 175 176.

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Type of Objective Knowledge Factor IV No. 172
Skill or Knowledge Category 11731200 Scale Value 2.5
Occupation Patient Care Aide Level 1
Refers to Task Code No(s).: 193

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to demonstrate mastery of the following subject area

Topographic Anatomy (relation of external physical manifestations to internal structure and function of parts of the body)

at a level of awareness and depth of understanding adequate to the proper performance of the following activities:

1. In preparing patient for special procedure, being able to refer to orders and drape patient so as to expose only the area of interest (Task 193).

To accomplish these activities the student must have a detailed knowledge of the subject category, covering the appropriate technical or special terms, facts, equipment, and/or procedures which are part of this discipline and are required for successful completion of the activities listed above.

Cross Reference Footnotes: See The Following Curriculum Objectives:
Lower scale value appears in: 169 170 171
Higher scale value appears in: 173 174 175 176.

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Type of Objective Knowledge Factor IV No. 173

Skill or Knowledge Category 11731200 Scale Value 3.5

Occupation Patient Care Technician Level 2

Refers to Task Code No(s).: 133 296 299

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to demonstrate mastery of the following subject area

Topographic Anatomy (relation of external physical manifestations to internal structure and function of parts of the body)

at a level of awareness and depth of understanding adequate to the proper performance of the following activities:

1. In administering subcutaneous or intramuscular injection, being able to select proper site to inject (Tasks 133, 299).
2. In providing first aid in x-ray department emergency, being able to select proper pressure points to allay bleeding, sites for injections, for ECG electrodes, for application of defibrillator paddles, points for taking pressure and pulse, pressure points to administer closed chest cardiac resuscitation or artificial respiration (Task 299).

To accomplish these activities the student must have a detailed knowledge of the subject category, covering the appropriate technical or special terms, facts, equipment, and/or procedures which are part of this discipline and are required for successful completion of the activities listed above.

Cross Reference Footnotes: See The Following Curriculum Objectives:
Lower scale value appears in: 169 170 171 172.
Same scale value appears in: 174.
Higher scale value appears in: 175 176.

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Type of Objective Knowledge **Factor** III **No.** 174
Skill or Knowledge Category 11731200 **Scale Value** 3.5
Occupation Radiologic Technologist **Level** 3
Refers to Task Code No(s).: 355 356 357 358 359 360 361 362 363 364 365 366 367 368 370 371 375 376 377 378 379 380 381 382 383 384 385 386 387 388 389 390 463 465 466 467 468 491 492 493 494 495 496 497 498 499 500 (*continued below)
Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to demonstrate mastery of the following subject area

Topographic Anatomy (relation of external physical manifestations to internal structure and function of parts of the body)

at a level of awareness and depth of understanding adequate to the proper performance of the following activities:

1. In positioning patient, being able to select the appropriate external anatomical reference points to position patient for the specific examination according to the area of the body involved, or to select alternative points if patient is obese and traditional points are obscured by fat; being able to account for bodily habitus in relating external references to internal structures; being able to refer to, draw, or imagine anatomical reference lines to provide appropriate angulation and rotation; being able to locate position of gonads to provide appropriate shielding based on position of patient (all tasks as appropriate).

2. In positioning patient, being able to take account of location of suspected fractures, unhealed fractures, or presence of foreign bodies and handle patient accordingly (all tasks as appropriate).

To accomplish these activities the student must have a detailed knowledge of the subject category, covering the appropriate technical or special terms, facts, equipment, and/or procedures which are part of this discipline and are required for successful completion of the activities listed above.

Cross Reference Footnotes: See The Following Curriculum Objectives:
Lower scale value appears in: 169 170 171 172.
Same scale value appears in: 173.
Higher scale value appears in: 175 176.

* 501 502 503 504 505 506 507 508 509 510 511 512 513 514 515 516 517 518 519.

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Type of Objective Knowledge Factor III No. 175

Skill or Knowledge Category 11731200 Scale Value 5.5

Occupation Radiologic Technologist Level 3

Refers to Task Code No(s).: 374 526

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to demonstrate mastery of the following subject area

Topographic Anatomy (relation of external physical manifestations to internal structure and function of parts of the body)

at a level of awareness and depth of understanding adequate to the proper performance of the following activities:

1. In taking tomograms of any patient, being able to select appropriate external anatomical reference points to position the patient for any examination according to the area of the body involved, or to select alternative points if the patient is obese; being able to account for bodily habitus in relating external references to internal structures; being able to refer to, draw, or imagine anatomical reference lines to provide appropriate angulation and rotation; being able to locate position of suspected lesion; being able to locate gonads to provide appropriate shielding based on position of patient; being able to take account of location of suspected fractures, unhealed fractures, or presence of foreign bodies and handle patient accordingly (Tasks 374, 526).

To accomplish these activities the student must have a detailed knowledge of the subject category, covering the appropriate technical or special terms, facts, equipment, and/or procedures which are part of this discipline and are required for successful completion of the activities listed above.

Cross Reference Footnotes: See The Following Curriculum Objectives:

Lower scale value appears in: 169 170 171 172 173 174.

Higher scale value appears in: 176.

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Type of Objective Knowledge Factor III No. 176

Skill or Knowledge Category 11731200 Scale Value 7.0

Occupation Radiologic Technologist Level 3

Refers to Task Code No(s).: 353

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to demonstrate mastery of the following subject area

Topographic Anatomy (relation of external physical manifestations to internal structure and function of parts of the body)

at a level of awareness and depth of understanding adequate to the proper performance of the following activities:

1. In participating in meeting of diagnostic x-ray department technologists, being able to comprehend, raise issues,or participate in any discussion dealing with the relation of external physical manifestations to internal structure and functioning anywhere in the body (Task 353).

To accomplish these activities the student must have a detailed knowledge of the subject category, covering the appropriate technical or special terms, facts, equipment, and/or procedures which are part of this discipline and are required for successful completion of the activities listed above.

Cross Reference Footnotes: See The Following Curriculum Objectives:
Lower scale value appears in: 169 170 171 172 173 174 175.
Same scale value appears in level 4.

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Type of Objective Knowledge Factor III No. 177

Skill or Knowledge Category 11731300 Scale Value 1.5

Occupation Radiologic Technologist Level 3

Refers to Task Code No(s).: 516

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to demonstrate mastery of the following subject area

Hematopoietic System (includes blood, red and white blood cells, platelets, and bone marrow, liver, and spleen in their blood-forming function)

at a level of awareness and depth of understanding adequate to the proper performance of the following activities:

1. In taking percutaneous splenoportograms, being able to use details of the structure and function of the spleen and its related organs in order to position patient, provide centering and collimation, direct central ray,and select technical factors (Task 516).

To accomplish these activities the student must have a detailed knowledge of the subject category, covering the appropriate technical or special terms, facts, equipment, and/or procedures which are part of this discipline and are required for successful completion of the activities listed above.

Cross Reference Footnote:

Same scale value appears in level 4.

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Type of Objective Knowledge Factor IV No. 178
Skill or Knowledge Category 11731400 Scale Value 1.5
Occupation Patient Care Aide Level 1
Refers to Task Code No(s).: 262 520

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to demonstrate mastery of the following subject area

Circulatory System (cardiovascular system; includes heart, veins, arteries, lymphatics)

at a level of awareness and depth of understanding adequate to the proper performance of the following activities:

1. In taking ECG and preparing patient for ECG monitoring, being able to apply understanding of ECG in relation to heart so as to properly apply electrodes and be alert to patient's condition (Tasks 262, 520).

To accomplish these activities the student must have a detailed knowledge of the subject category, covering the appropriate technical or special terms, facts, equipment, and/or procedures which are part of this discipline and are required for successful completion of the activities listed above.

Cross Reference Footnotes: See The Following Curriculum Objectives:
Same scale value appears in: 179 180.
Higher scale value appears in: 181.

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Type of Objective Knowledge Factor IV No. 179
Skill or Knowledge Category 11731400 Scale Value 1.5
Occupation Patient Care Technician Level 2
Refers to Task Code No(s).: 18 308

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to demonstrate mastery of the following subject area

Circulatory System (cardiovascular system; includes heart, veins, arteries, lymphatics)

at a level of awareness and depth of understanding adequate to the proper performance of the following activities:

1. In drawing blood from patient,being sufficiently familiar with blood vessels to select appropriate vein (Task 18).
2. In setting up and monitoring a patient's ECG, being able to apply understanding of ECG in relation to heart so as to properly apply electrodes and be alert to patient's condition (Task 308).

To accomplish these activities the student must have a detailed knowledge of the subject category, covering the appropriate technical or special terms, facts, equipment, and/or procedures which are part of this discipline and are required for successful completion of the activities listed above.

Cross Reference Footnotes: See The Following Curriculum Objectives:
Same scale value appears in: 178 180.
Higher scale value appears in: 181.

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Type of Objective Knowledge Factor III No. 180
Skill or Knowledge Category 11731400 Scale Value 1.5
Occupation Radiologic Technologist Level 3
Refers to Task Code No(s).: 362 376 494 502 504 509 510 511 512 513 514 515 516 517 518 519 526

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to demonstrate mastery of the following subject area

Circulatory System (cardiovascular system; includes heart, veins, arteries, lymphatics)

at a level of awareness and depth of understanding adequate to the proper performance of the following activities:

1. In taking radiographs of thoracic viscera, excretory intravenous inferior vena cavograms, all angiograms, being able to use details of the structure and function of the cardiovascular system and its related organs to position patient, provide centering and collimation, direct central ray, and select technical factors (all tasks listed).
2. In taking lymphangiograms or lymphadenograms, being able to use details of the structure and function of the lymphatic system and its related organs to position patient, provide centering and collimation, direct central ray, and select technical factors (Task 376).
3. In taking angiograms, being able to take account of the involvement of the heart and circulatory system and ECG monitoring in the procedures (Tasks 504, 509, 510, 511, 512, 513, 514, 515, 516, 517, 518, 519).

To accomplish these activities the student must have a detailed knowledge of the subject category, covering the appropriate technical or special terms, facts, equipment, and/or procedures which are part of this discipline and are required for successful completion of the activities listed above.

Cross Reference Footnotes: See The Following Curriculum Objectives:
Same scale value appears in: 178 179.
Higher scale value appears in: 181 and level 4.

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Type of Objective Knowledge Factor IV No. 181
Skill or Knowledge Category 11731400 Scale Value 2.5
Occupation Patient Care Technician Level 2
Refers to Task Code No(s).: 296

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to demonstrate mastery of the following subject area

Circulatory System (cardiovascular system; includes heart, veins, arteries, lymphatics)

at a level of awareness and depth of understanding adequate to the proper performance of the following activities:

1. In providing first aid in an x-ray department emergency, being able to use appropriate details about the anatomy and physiology of the heart and blood vessels to examine heart beat, take ECG, vital signs, and apply measures such as artificial respiration, closed chest cardiac resuscitation, defibrillator, injection of cardiac stimulant or application of pressure to appropriate vessels to arrest bleeding (Task 296).

To accomplish these activities the student must have a detailed knowledge of the subject category covering the appropriate technical or special terms, facts, equipment, and/or procedures which are part of this discipline and are required for successful completion of the activities listed above.

Cross Reference Footnotes: See The Following Curriculum Objectives:
Lower scale value appears in: 178 179 180.

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Type of Objective Knowledge Factor III No. 182
Skill or Knowledge Category 11731500 Scale Value 1.5
Occupation Radiologic Technologist Level 3
Refers to Task Code No(s).: 362 364 374 378 379 380 494 497 498 526

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to demonstrate mastery of the following subject area

Respiratory System

at a level of awareness and depth of understanding adequate to the proper performance of the following activities:

1. In taking plain films or tomograms of the thoracic viscera, anterior portion of the neck, choanograms, bronchograms, or assisting with bronchoscopy, needle lung biopsy, laryngography, being able to use details of the structure and function of the respiratory system and its related organs in order to position patient, provide centering and collimation, direct central ray, and select technical factors (all tasks listed).

To accomplish these activities the student must have a detailed knowledge of the subject category, covering the appropriate technical or special terms, facts, equipment, and/or procedures which are part of this discipline and are required for successful completion of the activities listed above.

Cross Reference Footnotes: See The Following Curriculum Objectives:
Higher scale value appears in: 183 and level 4.

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Type of Objective Knowledge Factor IV No. 183
Skill or Knowledge Category 11731500 Scale Value 2.5
Occupation Patient Care Technician Level 2
Refers to Task Code No(s).: 296

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to demonstrate mastery of the following subject area

Respiratory System

at a level of awareness and depth of understanding adequate to the proper performance of the following activities:

1. In providing emergency first aid, being able to use details of the structure and function of the respiratory system to open or clear an airway, insert an oral airway or endotracheal tube, administer oxygen, air,or artificial respiration (Task 296).

To accomplish these activities the student must have a detailed knowledge of the subject category, covering the appropriate technical or special terms, facts, equipment, and/or procedures which are part of this discipline and are required for successful completion of the activities listed above.

Cross Reference Footnotes: See The Following Curriculum Objectives:
Lower scale value appears in: 182.

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Type of Objective Knowledge Factor III No. 184

Skill or Knowledge Category 11731600 Scale Value 1.5

Occupation Radiologic Technologist Level 3

Refers to Task Code No(s).: 363 374 495 526

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to demonstrate mastery of the following subject area

Digestive System

at a level of awareness and depth of understanding adequate to the proper performance of the following activities:

1. In taking plain films and tomograms of abdominal contents, being able to use details of the structure and function of the digestive system and its related organs in order to position patient, provide centering and collimation, direct central ray, and select technical factors (Tasks 363, 374, 495, 526).

To accomplish these activities the student must have a detailed knowledge of the subject category, covering the appropriate technical or special terms, facts, equipment, and/or procedures which are part of this discipline and are required for successful completion of the activities listed above.

Cross Reference Footnote:
Higher scale value appears in level 4.

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Type of Objective Knowledge Factor III No. 185
Skill or Knowledge Category 11731610 Scale Value 1.5
Occupation Radiologic Technologist Level 3
Refers to Task Code No(s).: 364 374 375 381 494 499

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to demonstrate mastery of the following subject area

Mouth, Pharynx (Digestive Function), Esophagus (includes tongue, teeth, and salivary glands)

at a level of awareness and depth of understanding adequate to the proper performance of the following activities:

1. In taking plain films and tomograms of the anterior portion of the neck, sialograms, upper gastrointestinal tract contrast films, being able to use details of the structure and function of the mouth, esophagus, salivary glands and related organs in order to position patient, provide centering and collimation, direct central ray, and select technical factors (Tasks 364, 374, 375, 381, 494, 499).

To accomplish these activities the student must have a detailed knowledge of the subject category, covering the appropriate technical or special terms, facts, equipment, and/or procedures which are part of this discipline and are required for successful completion of the activities listed above.

Cross Reference Footnote:
Higher scale value appears in level 4.

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Type of Objective Knowledge Factor III No. 186

Skill or Knowledge Category 11731620 Scale Value 1.5

Occupation Radiologic Technologist Level 3

Refers to Task Code No(s).: 381 382 499 501

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to demonstrate mastery of the following subject area

Stomach and Small Intestine (includes duodenum, jejunum, ileum)

at a level of awareness and depth of understanding adequate to the proper performance of the following activities:

1. In taking radiographs of the upper gastrointestinal tract, small intestine intubation radiographs, peritoneograms, being able to use the details of the structure and function of the small intestine and its related organs in order to position patient, provide centering and collimation, direct central ray, and select technical factors (Tasks 381, 382, 499, 501).

To accomplish these activities the student must have a detailed knowledge of the subject category, covering the appropriate technical or special terms, facts, equipment, and/or procedures which are part of this discipline and are required for successful completion of the activities listed above.

Cross Reference Footnote:
Higher scale value appears in level 4.

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Type of Objective Knowledge Factor III No. 187

Skill or Knowledge Category 11731630 Scale Value 1.5

Occupation Radiologic Technologist Level 3

Refers to Task Code No(s).: 383 500 501

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to demonstrate mastery of the following subject area

Large Intestine (Colon) and Rectum (also includes appendix, anus, and mesentery)

at a level of awareness and depth of understanding adequate to the proper performance of the following activities:

1. In taking barium enema radiographs, intussusception or defecography radiographs, peritoneograms, herniograms, being able to use details of the structure and function of the large intestine, rectum and related organs in order to position patient, provide centering and collimation, direct central ray, and select technical factors (Tasks 383, 500, 501).

To accomplish these activities the student must have a detailed knowledge of the subject category, covering the appropriate technical or special terms, facts, equipment, and/or procedures which are part of this discipline and are required for successful completion of the activities listed above.

Cross Reference Footnote:
Higher scale value appears in level 4.

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Type of Objective Knowledge Factor III No. 188

Skill or Knowledge Category 11731640 Scale Value 1.5

Occupation Radiologic Technologist Level 3

Refers to Task Code No(s).: 371 384 385 386 387

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to demonstrate mastery of the following subject area

Liver, Biliary System, and Pancreas (includes gallbladder, cystic duct, bile duct, pancreatic duct, ampulla of Vater)

at a level of awareness and depth of understanding adequate to the proper performance of the following activities:

1. In taking operative cholangiograms, pancreatograms, oral or intravenous cholecystograms, cholangiograms, percutaneous or T-tube cholangiograms, and urograms followed by films of biliary tract, being able to use details of the structure and function of the liver, biliary system, pancreas and related organs in order to position patient, provide centering and collimation, direct central ray, and select technical factors (Tasks 371, 384, 385, 386, 387).

To accomplish these activities the student must have a detailed knowledge of the subject category, covering the appropriate technical or special terms, facts, equipment, and/or procedures which are part of this discipline and are required for successful completion of the activities listed above.

Cross Reference Footnote:
Higher scale value appears in level 4.

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Type of Objective Knowledge Factor III No. 189

Skill or Knowledge Category 11731700 Scale Value 1.5

Occupation Radiologic Technologist Level 3

Refers to Task Code No(s).: 363 387 388 389 390 463 495 501 502 526

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to demonstrate mastery of the following subject area

Urinary System (includes kidney, ureter, bladder, urethra, external genitalia)

at a level of awareness and depth of understanding adequate to the proper performance of the following activities:

1. In taking plain films of abdominal contents, intravenous pyelograms, urograms, infusion nephrotomograms, percutaneous antegrade or renal cyst pyelograms, cystograms, voiding cystourethrograms, retrograde pyelograms, ureterograms, peritoneograms, herniograms, excretory intravenous inferior vena cavograms followed by urograms, or computerized transverse axial scans of abdominal contents, being able to identify the details of the structure and function of the urinary system and its related organs to position patient, provide centering and collimation, direct central ray, and select technical factors (all tasks listed).

To accomplish these activities the student must have a detailed knowledge of the subject category, covering the appropriate technical or special terms, facts, equipment, and/or procedures which are part of this discipline and are required for successful completion of the activities listed above.

Cross Reference Footnotes: See The Following Curriculum Objectives:
Higher scale value appears in: 190 191 and level 4.

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Type of Objective Knowledge Factor IV No. 190
Skill or Knowledge Category 11731700 Scale Value 2.5
Occupation Patient Care Technician Level 2
Refers to Task Code No(s).: 143

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to demonstrate mastery of the following subject area

Urinary System (includes kidney, ureter, bladder, urethra, external genitalia)

at a level of awareness and depth of understanding adequate to the proper performance of the following activities:

1. In catheterizing the female urethra, being able to use details of the structure and function of the female urethra, bladder, and external genitalia in order to cleanse patient, insert catheter, and obtain residual urine (Task 143).

To accomplish these activities the student must have a detailed knowledge of the subject category, covering the appropriate technical or special terms, facts, equipment, and/or procedures which are part of this discipline and are required for successful completion of the activities listed above.

Cross Reference Footnotes: See The Following Curriculum Objectives:
Lower scale value appears in: 189.
Higher scale value appears in: 191.

CURRICULUM OBJECTIVE SHEET Page 1 of 1

Type of Objective Knowledge Factor IV No. 191
Skill or Knowledge Category 11731700 Scale Value 3.5
Occupation Patient Care Technician Level 2
Refers to Task Code No(s).: 181

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to demonstrate mastery of the following subject area

Urinary System (includes kidney, ureter, bladder, urethra, external genitalia)

at a level of awareness and depth of understanding adequate to the proper performance of the following activities:

1. In catheterizing the male or female urethra, being able to use details of the structure and function of the male and female urethra, bladder, and external genitalia in order to cleanse patient, insert catheter, and obtain residual urine (Task 181).

To accomplish these activities the student must have a detailed knowledge of the subject category, covering the appropriate technical or special terms, facts, equipment, and/or procedures which are part of this discipline and are required for successful completion of the activities listed above.

Cross Reference Footnotes: See The Following Curriculum Objectives:
Lower scale value appears in: 189 190.

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Type of Objective Knowledge Factor III No. 192
Skill or Knowledge Category 11731800 Scale Value 2.5
Occupation Radiologic Technologist Level 3
Refers to Task Code No(s).: 355 356 357 358 359 360 361 362 363 364 365 366 367 368 370 375 376 377 378 379 380 381 382 383 387 388 389 390 463 465 466 467 468 491 492 493 494 495 496 497 498 499 500 501 502 503 (*continued below)
Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to demonstrate mastery of the following subject area

Musculoskeletal System

at a level of awareness and depth of understanding adequate to the proper performance of the following activities:

1. In taking radiographs of specific areas of the body listed on requisition, being able to use details of the structure and function of the musculoskeletal system in order to position patient, provide centering and collimation, direct central ray, and select technical factors (all tasks listed).

To accomplish these activities the student must have a detailed knowledge of the subject category, covering the appropriate technical or special terms, facts, equipment, and/or procedures which are part of this discipline and are required for successful completion of the activities listed above.

Cross Reference Footnotes: See The Following Curriculum Objectives:
Higher scale value appears in: 193 194.

* 504 505 506 507 508 509 510 511 512 513 514 515 516 517 518 519.

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Type of Objective Knowledge Factor III No. 193
Skill or Knowledge Category 11731800 Scale Value 3.5
Occupation Radiologic Technologist Level 3
Refers to Task Code No(s).: 374 526

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to demonstrate mastery of the following subject area

Musculoskeletal System

at a level of awareness and depth of understanding adequate to the proper performance of the following activities:

1. In taking conventional tomograms and computerized transverse axial scans of any part of the body, being able to use details of the structure and function of the musculoskeletal system in relation to other organs in order to position patient, provide centering and collimation, direct central ray, select scan levels,and/or select technical factors (Tasks 374, 526).

To accomplish these activities the student must have a detailed knowledge of the subject category, covering the appropriate technical or special terms, facts, equipment, and/or procedures which are part of this discipline and are required for successful completion of the activities listed above.

Cross Reference Footnotes: See The Following Curriculum Objectives:
Lower scale value appears in: 192.
Higher scale value appears in: 194.

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Type of Objective Knowledge Factor III No. 194
Skill or Knowledge Category 11731800 Scale Value 5.5
Occupation Radiologic Technologist Level 3
Refers to Task Code No(s).: 81 353

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to demonstrate mastery of the following subject area

Musculoskeletal System

at a level of awareness and depth of understanding adequate to the proper performance of the following activities:

1. In providing technical quality review of "plain film" radiographs, being able to evaluate whether the musculoskeletal system is properly demonstrated for diagnostic purposes given the area of interest, requisition sheet, and appearance of images in relation to appropriate standards of detail, definition, sharpness, inclusion and exclusion requirements for the examination (Task 81).
2. In meeting of diagnostic x-ray department technologists, being able to raise issues, comprehend and participate in discussions dealing with patient care, positioning, shielding, new equipment, examination procedures that involve the musculoskeletal system (Task 353).

To accomplish these activities the student must have a detailed knowledge of the subject category, covering the appropriate technical or special terms, facts, equipment, and/or procedures which are part of this discipline and are required for successful completion of the activities listed above.

Cross Reference Footnotes: See The Following Curriculum Objectives:
Lower scale value appears in: 192 193.
Same scale value appears in level 4.

CURRICULUM OBJECTIVE SHEET

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Type of Objective Knowledge Factor III No. 195

Skill or Knowledge Category 11731820 Scale Value 2.5

Occupation Radiologic Technologist Level 3

Refers to Task Code No(s).: 363 364 367 375 376 378 379 380 381 382 383 387 388 389 390 463 465 466 467 468 495 497 498 499 500 501 502 503 504 505 506 508 509 510 511 512 513 514 515 516 517 518 519

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to demonstrate mastery of the following subject area

Bones and Joints (includes ligaments and tendons)

at a level of awareness and depth of understanding adequate to the proper performance of the following activities:

1. In taking radiographs of areas of the body other than bones and joints, being able to use details of the structure and function of bones and joints to take account of what movement is available to patient, and to position, center patient, and direct central ray so that area of interest will be visualized rather than obstructed by bones (all tasks listed).

To accomplish these activities the student must have a detailed knowledge of the subject category, covering the appropriate technical or special terms, facts, equipment, and/or procedures which are part of this discipline and are required for successful completion of the activities listed above.

Cross Reference Footnotes: See The Following Curriculum Objectives:
Higher scale value appears in: 196 197.

CURRICULUM OBJECTIVE SHEET Page 1 of 1

Type of Objective Knowledge Factor III No. 196
Skill or Knowledge Category 11731820 Scale Value 3.5
Occupation Radiologic Technologist Level 3
Refers to Task Code No(s).: 355 356 357 358 359 360 361 362 365 366 370 374 377 491 492 493 494 496 507 526

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to demonstrate mastery of the following subject area

Bones and Joints (including ligaments and tendons)

at a level of awareness and depth of understanding adequate to the proper performance of the following activities:

1. In taking radiographs of bones or joints, or making tomograms, being able to use details of the structure and function of the bones and joints and related organs in order to position patient, provide centering and collimation, select level, direct central ray, and select technical factors (all tasks listed).

To accomplish these activities the student must have a detailed knowledge of the subject category, covering the appropriate technical or special terms, facts, equipment, and/or procedures which are part of this discipline and are required for successful completion of the activities listed above.

Cross Reference Footnotes: See The Following Curriculum Objectives:
Lower scale value appears in: 195.
Higher scale value appears in: 197.

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Type of Objective Knowledge Factor III No. 197
Skill or Knowledge Category 11731820 Scale Value 7.0
Occupation Radiologic Technologist Level 3
Refers to Task Code No(s).: 353

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to demonstrate mastery of the following subject area

Bones and Joints (includes ligaments and tendons)

at a level of awareness and depth of understanding adequate to the proper performance of the following activities:

1. In meeting of diagnostic x-ray department technologists, being able to raise issues, comprehend and participate in discussions dealing with patient care, positioning, new equipment, examination procedures that involve bones and joints directly or in connection with other organs of interest (Task 353).

To accomplish these activities the student must have a detailed knowledge of the subject category, covering the appropriate technical or special terms, facts, equipment, and/or procedures which are part of this discipline and are required for successful completion of the activities listed above.

Cross Reference Footnotes: See The Following Curriculum Objectives:
Lower scale value appears in: 195 196.
Same scale value appears in level 4.

CURRICULUM OBJECTIVE SHEET

Type of Objective Knowledge Factor III No. 198
Skill or Knowledge Category 11731910 Scale Value 1.5
Occupation Radiologic Technologist Level 3
Refers to Task Code No(s).: 374 504 505 506 507 508 509 526

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to demonstrate mastery of the following subject area

Central Nervous System (brain and spinal cord)

at a level of awareness and depth of understanding adequate to the proper performance of the following activities:

1. In taking skull tomograms or contrast studies such as cerebral angiograms, pneumoencephalograms, brain ventriculograms, myelograms, diskograms, spinal cord angiograms, or computerized transverse axial brain scans, being able to use details of the structure and function of the brain and spinal cord and related organs in order to handle and position patient, provide centering and collimation, direct central ray, and select technical factors (Tasks 374, 504, 505, 506, 507, 508, 509, 526).

To accomplish these activities the student must have a detailed knowledge of the subject category, covering the appropriate technical or special terms, facts, equipment, and/or procedures which are part of this discipline and are required for successful completion of the activities listed above.

Cross Reference Footnote:

Higher scale value appears in level 4.

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Type of Objective Knowledge Factor III No. 199

Skill or Knowledge Category 11731943 Scale Value 1.5

Occupation Radiologic Technologist Level 3

Refers to Task Code No(s).: 367

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to demonstrate mastery of the following subject area

Eye and Optic Nerve

at a level of awareness and depth of understanding adequate to the proper performance of the following activities:

1. In taking preliminary localization radiographs of foreign bodies in the orbit or eye, being able to use details of the structure and function of the eye and its related organs in order to position patient, provide centering and collimation, direct central ray, and select technical factors (Task 367).

To accomplish these activities the student must have a detailed knowledge of the subject category, covering the appropriate technical or special terms, facts, equipment, and/or procedures which are part of this discipline and are required for successful completion of the activities listed above.

Cross Reference Footnote:
Same scale value appears in level 4.

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Type of Objective Knowledge Factor III No. 200
Skill or Knowledge Category 11732222 Scale Value 1.5
Occupation Radiologic Technologist Level 3
Refers to Task Code No(s).: 374 503 526

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to demonstrate mastery of the following subject area

Male Reproductive System

at a level of awareness and depth of understanding adequate to the proper performance of the following activities:

1. In taking tomograms or genitograms for intersex condition, being able to use details of the structure and function of the male reproductive system and related organs in order to position patient, provide centering and collimation, direct central ray, and select technical factors (Tasks 374, 503, 526).

To accomplish these activities the student must have a detailed knowledge of the subject category, covering the appropriate technical or special terms, facts, equipment, and/or procedures which are part of this discipline and are required for successful completion of the activities listed above.

Cross Reference Footnote:
Higher scale value appears in level 4.

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Type of Objective Knowledge Factor III No. 201

Skill or Knowledge Category 11732223 Scale Value 1.5

Occupation Radiologic Technologist Level 3

Refers to Task Code No(s).: 374 465 466 467 468 503 512 526

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to demonstrate mastery of the following subject area

Female Reproductive System (includes the body changes associated with ovulation, conception and pregnancy, e.g., development of placenta)

at a level of awareness and depth of understanding adequate to the proper performance of the following activities:

1. In taking tomograms, pelvic pneumograms/hysterosalpingograms, fetograms, amniograms, placentograms, uterograms, radiographs for pelvimetry, genitograms for intersex condition, pelvic angiograms, being able to use details of the structure and function of the female reproductive system and related organs in order to position patient, provide centering and collimation, direct central ray, and select technical factors (all tasks listed).

To accomplish these activities the student must have a detailed knowledge of the subject category, covering the appropriate technical or special terms, facts, equipment, and/or procedures which are part of this discipline and are required for successful completion of the activities listed above.

Cross Reference Footnote:
Higher scale value appears in level 4.

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Type of Objective Knowledge Factor III No. 202
Skill or Knowledge Category 11733200 Scale Value 1.5
Occupation Radiologic Technologist Level 3
Refers to Task Code No(s).: 353 362 363 364 366 368 374 375 376 378 379 380 381 382 383 384 385 386 387 388 389 390 463 465 494 495 498 499 500 501 502 504 505 506 508 509 511 512 514 515 516 518 526
Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to demonstrate mastery of the following subject area

Neoplasms (cancerous growths)

at a level of awareness and depth of understanding adequate to the proper performance of the following activities:

1. In participating in meeting of diagnostic x-ray department technologists, being able to comprehend, raise issues, or participate in any discussion dealing with neoplasmic diseases as they affect patient care and radiographic examinations (Task 353).

2. In taking radiographs, being able to use details about the way neoplasms manifest in the area of interest listed on the requisition sheet so as to properly handle patient, position patient properly, apply immobilization devices safely, and select technical factors (all tasks except Task 353).

To accomplish these activities the student must have a detailed knowledge of the subject category, covering the appropriate technical or special terms, facts, equipment, and/or procedures which are part of this discipline and are required for successful completion of the activities listed above.

Cross Reference Footnote:
Higher scale value appears in level 4.

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Type of Objective Knowledge Factor III No. 203

Skill or Knowledge Category 11733400 Scale Value 1.5

Occupation Radiologic Technologist Level 3

Refers to Task Code No(s).: 516

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to demonstrate mastery of the following subject area

Disorders of Blood and Blood-Forming Organs

at a level of awareness and depth of understanding adequate to the proper performance of the following activities:

1. In taking percutaneous splenoportograms, being able to use details about the way diseases of the spleen manifest so as to properly handle patient, position patient properly, apply immobilization devices safely, and select technical factors (Task 516).

To accomplish these activities the student must have a detailed knowledge of the subject category, covering the appropriate technical or special terms, facts, equipment, and/or procedures which are part of this discipline and are required for successful completion of the acitivites listed above.

Cross Reference Footnote:
Same scale value appears in level 4.

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Type of Objective Knowledge Factor III No. 204
Skill or Knowledge Category 11733510 Scale Value 1.5
Occupation Radiologic Technologist Level 3
Refers to Task Code No(s).: 504 505 506 507 508 509

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to demonstrate mastery of the following subject area

Disorders of the Central Nervous System

at a level of awareness and depth of understanding adequate to the proper performance of the following activities:

1. In taking cerebral angiograms, pneumoencephalograms, brain ventriculograms, myelograms, diskograms, spinal cord angiograms, being able to use details about the way disorders of the central nervous system manifest in the area of interest and affect the patient's behavior so as to properly relate to patient, position patient, apply immobilization devices, and select technical factors (Tasks 504, 505 506, 507, 508, 509).

To accomplish these activities the student must have a detailed knowledge of the subject category, covering the appropriate technical or special terms, facts, equipment, and/or procedures which are part of this discipline and are required for successful completion of the activities listed above.

Cross Reference Footnote:
Higher scale value appears in level 4.

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Type of Objective Knowledge **Factor** IV **No.** 205
Skill or Knowledge Category 11733600 Scale Value 1.5
Occupation Patient Care Aide Level 1
Refers to Task Code No(s).: 199 262 520

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: **A graduate of the program at this educational level must be able to** demonstrate mastery of the following subject area

Disorders of the Circulatory System

at a level of awareness and depth of understanding adequate to the proper performance of the following activities:

1. In taking vital signs, being able to use details about disorders of the circulatory system so as to recognize abnormal pulse rate and blood pressure and use instruments for their measurement, such as sphygmomanometer, stethescope (Task 199).

2. In taking ECG or preparing patient for ECG monitoring, being able to use details about disorders of the heart so as to use the electrocardiograph machine, recognize signs of emergency, and/or take other proper precautions (Tasks 262, 520).

To accomplish these activities the student must have a detailed knowledge of the subject category, covering the appropriate technical or special terms, facts, equipment, and/or procedures which are part of this discipline and are required for successful completion of the activities listed above.

Cross Reference Footnotes: See The Following Curriculum Objectives:
Same scale value appears in: 206 207.
Higher scale value appears in: 208.

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Type of Objective Knowledge Factor IV No. 206
Skill or Knowledge Category 11733600 Scale Value 1.5
Occupation Patient Care Technician Level 2
Refers to Task Code No(s).: 308

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to demonstrate mastery of the following subject area

Disorders of the Circulatory System

at a level of awareness and depth of understanding adequate to the proper performance of the following activities:

1. In setting up and monitoring ECG, being able to use details about disorders of the heart so as to use the electrocardiograph machine and recognize unusual or emergency ECG and blood pressure readings as shown on visual oscilloscope display, tracings on paper, or as audio signals (Task 308).

To accomplish these activities the student must have a detailed knowledge of the subject category, covering the appropriate technical or special terms, facts, equipment, and/or procedures which are part of this discipline and are required for successful completion of the activities listed above.

Cross Reference Footnotes: See The Following Curriculum Objectives:
Same scale value appears in: 205 207.
Higher scale value appears in: 208.

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Type of Objective Knowledge **Factor** III **No.** 207

Skill or Knowledge Category 11733600 **Scale Value** 1.5

Occupation Radiologic Technologist **Level** 3

Refers to Task Code No(s).: 353 355 356 357 358 359 360 361 363 364 365 366 367 368 369 374 375 377 378 379 380 381 382 383 384 385 386 387 388 389 390 463 464 465 466 467 468 491 492 493 495 496 497 498 499 (*continued below)

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to demonstrate mastery of the following subject area

Disorders of the Circulatory System

at a level of awareness and depth of understanding adequate to the proper performance of the following activities:

1. In participating in meeting of diagnostic x-ray department technologists, being able to comprehend, raise issues, or participate in any discussion dealing with disorders of the circulatory system as they affect patient care and radiographic examinations (Task 353).

2. In taking radiographs, being able to use details about the way disorders of the circulatory system affect a patient with such disorders so that performer can select safe patient positions, handle patient safely, properly immobilize patient, and so that performer can recognize emergency signs (all tasks listed except Task 353).

To accomplish these activities the student must have a detailed knowledge of the subject category, covering the appropriate technical or special terms, facts, equipment, and/or procedures which are part of this discipline and are required for successful completion of the activities listed above.

Cross Reference Footnotes: See The Following Curriculum Objectives:
Same scale value appears in: 205 206.
Higher scale value appears in: 208.

* 500 501 503 505 506 507 508 526.

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Type of Objective Knowledge **Factor** III **No.** 208
Skill or Knowledge Category 11733600 **Scale Value** 2.5
Occupation Radiologic Technologist **Level** 3
Refers to Task Code No(s).: 362 376 494 502 504 509 510 511 512 513 514 515 516 517 518 519

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to demonstrate mastery of the following subject area

Disorders of the Circulatory System

at a level of awareness and depth of understanding adequate to the proper performance of the following activities:

1. In taking plain films of the heart or excretory intravenous inferior vena cavograms, cerebral or other angiograms, being able to use details about the way disorders of the heart and blood vessels manifest in the area of interest so as to properly care for patient, position patient, apply immobilization devices, recognize emergency signs, and select technical factors (all tasks listed except Task 376).
2. In taking lymphangiograms or lymphadenograms, being able to use details about the way diseases of the lymphatic system manifest so as to properly handle patient, position and immobilize patient,and select technical factors (Task 376).

To accomplish these activities the student must have a detailed knowledge of the subject category, covering the appropriate technical or special terms, facts, equipment, and/or procedures which are part of this discipline and are required for successful completion of the activities listed above.

Cross Reference Footnotes: See The Following Curriculum Objectives:
Lower scale value appears in: 205 206 207.
Same scale value appears in level 4.

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Type of Objective Knowledge Factor III No. 209
Skill or Knowledge Category 11733700 Scale Value 1.5
Occupation Radiologic Technologist Level 3
Refers to Task Code No(s).: 363 371 375 381 382 383 384 385 386 387 495 499 500 501

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to demonstrate mastery of the following subject area

Disorders of the Digestive System

at a level of awareness and depth of understanding adequate to the proper performance of the following activities:

1. In taking radiographs of abdominal contents, operative cholangiograms, pancreatograms, sialograms, radiographs of the upper gastrointestinal tract, small intestine intubation,or barium enema radiographs, oral or intravenous cholangiograms, cholecystograms, percutaneous or T-tube cholangiograms, intravenous urograms followed by cholangiograms, intussusception or defecography radiographs, or peritoneograms/herniograms, being able to use details about the way disorders of the digestive system manifest in the area of interest so as to properly care for patient, position patient, safely apply immobilization devices, recognize emergency signs and select technical factors (all tasks listed).

To accomplish these activities the student must have a detailed knowledge of the subject category, covering the appropriate technical or special terms, facts, equipment, and/or procedures which are part of this discipline and are required for successful completion of the activities listed above.

Cross Reference Footnote:
Higher scale values appear in level 4.

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Type of Objective Knowledge Factor III No. 210

Skill or Knowledge Category 11733800 Scale Value 1.5

Occupation Radiologic Technologist Level 3

Refers to Task Code No(s).: 353 355 356 357 358 359 360 361 363 364 365 366 367 368 369 375 376 377 381 382 383 384 385 386 387 388 389 390 463 464 465 466 467 468 491 492 493 495 496 497 499 500 501 502 503 504 505 (*continued below)

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to demonstrate mastery of the following subject area

Disorders of the Respiratory System

at a level of awareness and depth of understanding adequate to the proper performance of the following activities:

1. In participating in meeting of diagnostic x-ray department technologists, being able to comprehend, raise issues, or participate in any discussion dealing with disorders of the respiratory system as they affect patient care and radiographic examinations (Task 353).

2. In taking radiographs, being able to use details about the way disorders of the respiratory system affect a patient with such disorders so that performer can select safe patient positions, handle patient safely, properly immobilize patient; being able to recognize that patient is having respiratory difficulty (all tasks listed except Task 353).

To accomplish these activities the student must have a detailed knowledge of the subject category, covering the appropriate technical or special terms, facts, equipment, and/or procedures which are part of this discipline and are required for successful completion of the activities listed above.

Cross Reference Footnotes: See The Following Curriculum Objectives:
Higher scale value appears in: 211.

* 506 507 508 509 510 511 512 513 514 515 516 517 518 519 526.

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Type of Objective Knowledge Factor III No. 211

Skill or Knowledge Category 11733800 Scale Value 2.5

Occupation Radiologic Technologist Level 3

Refers to Task Code No(s).: 362 374 378 379 380 494 498

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to demonstrate mastery of the following subject area

Disorders of the Respiratory System

at a level of awareness and depth of understanding adequate to the proper performance of the following activities:

1. In taking plain films or tomograms of the lungs, bronchograms, or assisting with laryngography, being able to use details about the way disorders of the respiratory system manifest in the area of interest so as to properly care for patient, position patient, safely apply immobilization devices, take sanitary precautions, recognize emergency signs, and select technical factors (all tasks listed).

To accomplish these activities the student must have a detailed knowledge of the subject category, covering the appropriate technical or special terms, facts, equipment, and/or procedures which are part of this discipline and are required for successful completion of the activities listed above.

Cross Reference Footnotes: See The Following Curriculum Objectives:
Lower scale value appears in: 210.
Higher scale value appears in level 4.

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Type of Objective Knowledge Factor III No. 212

Skill or Knowledge Category 11733900 Scale Value 1.5

Occupation Radiologic Technologist Level 3

Refers to Task Code No(s).: 363 387 388 389 390 463 465 466 495 501 502 512

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to demonstrate mastery of the following subject area

Disorders of the Uro-genital System

at a level of awareness and depth of understanding adequate to the proper performance of the following activities:

1. In taking plain films of abdominal contents, intravenous pyelograms, urograms, infusion nephrotomograms, percutaneous antegrade or renal cyst pyelograms, cystograms, voiding cystourethrograms, retrograde pyelograms and ureterograms, pelvic pneumograms, hysterosalpingograms, fetograms, amniograms, placentograms, peritoneograms/herniograms, or pelvic angiograms, being able to use details about the way disorders of the uro-genital system manifest so as to properly care for patient, position and immobilize patient safely, recognize emergency signs, and select technical factors (all tasks listed).

To accomplish these activities the student must have a detailed knowledge of the subject category, covering the appropriate technical or special terms, facts, equipment, and/or procedures which are part of this discipline and are required for successful completion of the activities listed above.

Cross Reference Footnote:
Higher scale values appear in level 4.

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Type of Objective Knowledge **Factor** III **No.** 213
Skill or Knowledge Category 11734200 **Scale Value** 1.5
Occupation Radiologic Technologist **Level** 3
Refers to Task Code No(s).: 363 364 367 369 370 374 375 376 378 379 380 381 382 383 384 385 386 387 388 389 390 463 464 465 466 467 468 495 497 498 499 500 501 502 503 504 505 506 508 509 510 511 512 513 514 515 516 517 518 519 526
Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to demonstrate mastery of the following subject area

Disorders of the Musculoskeletal System and Connective Tissues

at a level of awareness and depth of understanding adequate to the proper performance of the following activities:

1. In taking radiographs of areas of the body listed on the requisition, being able to use details about the way disorders of the musculoskeletal system and connective tissues affect a patient with such disorders so that performer can position, immobilize and handle the patient safely, and demonstrate the area of interest (all tasks listed).

To accomplish these activities the student must have a detailed knowledge of the subject category, covering the appropriate technical or special terms, facts, equipment, and/or procedures which are part of this discipline and are required for successful completion of the activities listed above.

Cross Reference Footnote:

Higher scale value appears in: 214.

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Type of Objective Knowledge **Factor** III **No.** 214
Skill or Knowledge Category 11734200 **Scale Value** 2.5
Occupation Radiologic Technologist **Level** 3
Refers to Task Code No(s).: 353 355 356 357 358 359 360 361 362 365 366 368 377 491 492 493 494 496 507

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to demonstrate mastery of the following subject area

Disorders of the Musculoskeletal System and Connective Tissues

at a level of awareness and depth of understanding adequate to the proper performance of the following activities:

1. In participating in meeting of diagnostic x-ray department technologists, being able to comprehend, raise issues, or participate in any discussion dealing with disorders of the musculoskeletal system and connective tissues as they affect patient care and radiographic examinations (Task 353).
2. In taking radiographs or tomograms of bones or joints, taking mammograms, being able to use details about the way disorders of the musculoskeletal system and connective tissues manifest so as to properly care for patient, take account of the presence of suspected or unhealed fractures, degenerative diseases with regard to the movement available to the patient, to safely position and immobilize patient, recognize emergency signs, and select technical factors (all tasks listed except Task 353).

To accomplish these activities the student must have a detailed knowledge of the subject category, covering the appropriate technical or special terms, facts, equipment, and/or procedures which are part of this discipline and are required for successful completion of the activities listed above.

Cross Reference Footnotes: See The Following Curriculum Objectives:
Lower scale value appears in: 213.
Higher scale value appears in level 4.

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Type of Objective Knowledge Factor III No. 215

Skill or Knowledge Category 11734300 Scale Value 1.5

Occupation Radiologic Technologist Level 3

Refers to Task Code No(s).: 380 496 497 499 500 501 502 503

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to demonstrate mastery of the following subject area

Congenital Abnormalities

at a level of awareness and depth of understanding adequate to the proper performance of the following activities:

1. In assisting with cleft palate fluoroscopy, taking plain film radiographs of the lower extremities, taking radiographs for choanal atresia, taking upper GI, barium enema, intussusception, defecography radiographs of pediatric patient, percutaneous peritoneograms/herniograms, excretory intravenous inferior vena cavograms, urograms, genitograms, or fistulograms of pediatric patient, being able to use details about the way congenital abnormalities manifest in the area of interest so as to properly care for patient, position and immobilize patient safely, recognize emergency signs, and select technical factors (all tasks listed).

To accomplish these activities the student must have a detailed knowledge of the subject category, covering the appropriate technical or special terms, facts, equipment, and/or procedures which are part of this discipline and are required for successful completion of the activities listed above.

Cross Reference Footnote:
Higher scale value appears in level 4.

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Type of Objective Knowledge Factor III No. 216
Skill or Knowledge Category 11734400 Scale Value 1.5
Occupation Radiologic Technologist Level 3
Refers to Task Code No(s).: 466 467 468 512

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to demonstrate mastery of the following subject area

Disorders and Complications of Pregnancy, Childbirth and the Puerperium

at a level of awareness and depth of understanding adequate to the proper performance of the following activities:

1. In taking fetograms, amniograms, placentograms, uterograms for intrauterine transfusion, radiographs for pelvimetry, or pelvic angiograms, being able to use details about the way disorders and complications of pregnancy manifest so as to properly care for patient, position and immobilize patient safely, recognize emergency signs, and select technical factors (Tasks 465, 467, 468, 512).

To accomplish these activities the student must have a detailed knowledge of the subject category, covering the appropriate technical or special terms, facts, equipment, and/or procedures which are part of this discipline and are required for successful completion of the activities listed above.

Cross Reference Footnote:
Higher scale value appears in level 4.

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Type of Objective Knowledge Factor IV No. 217

Skill or Knowledge Category 11734600 Scale Value 3.5

Occupation Patient Care Technician Level 2

Refers to Task Code No(s).: 156

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to demonstrate mastery of the following subject area

Burns

at a level of awareness and depth of understanding adequate to the proper performance of the following activities:

1. Applying information on how burns heal or show infection in order to evaluate healing and report suspicious appearance in connection with orders to irrigate, clean,or dress a burn (Task 156).

To accomplish these activities the student must have a detailed knowledge of the subject category, covering the appropriate technical or special terms, facts, equipment, and/or procedures which are part of this discipline and are required for successful completion of the activities listed above.

Cross Reference Footnote:
Same scale value appears in level 4 of patient care.

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Type of Objective Knowledge Factor III No. 218
Skill or Knowledge Category 11734800 Scale Value 1.5
Occupation Radiologic Technologist Level 3
Refers to Task Code No(s).: 369 463 464

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to demonstrate mastery of the following subject area

Shock and Trauma

at a level of awareness and depth of understanding adequate to the proper performance of the following activities:

1. In setting up mobile portable radiography equipment for bedside radiography, participating in retrograde pyelography examination, or providing technical assistance for fluoroscopy, after learning that patient is suffering from shock or trauma, applying details about such a condition so as to properly handle patient for the examination, take account of limitations on patient positioning, movement, type of care required (Tasks 369, 463, 464).

To accomplish these activities the student must have a detailed knowledge of the subject category, covering the appropriate technical or special terms, facts, equipment, and/or procedures which are part of this discipline and are required for successful completion of the activities listed above.

Cross Reference Footnotes: See The Following Curriculum Objectives:
Higher scale value appears in: 219 220.

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Type of Objective Knowledge Factor III No. 219

Skill or Knowledge Category 11734800 Scale Value 2.5

Occupation Radiologic Technologist Level 3

Refers to Task Code No(s).: 353 355 356 357 358 359 360 361 362 363 364 365 366 367 368 374 375 376 377 378 379 380 381 382 383 384 385 386 387 388 389 390 465 466 467 468 491 492 493 494 495 496 497 498 499 500 501 502 (*continued below)

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to demonstrate mastery of the following subject area

Shock and Trauma

at a level of awareness and depth of understanding adequate to the proper performance of the following activities:

1. In participating in meeting of diagnostic x-ray department technologists, being able to comprehend, raise issues, or participate in any discussion dealing with patients suffering from shock or trauma as it affects patient care and radiographic examinations (Task 353).

2. In taking radiographs, being able to use details about the way conditions of shock or trauma manifest in the patient so as to properly move and care for patient, position and immobilize safely, recognize emergency signs, and select technical factors; being able to recognize shock reaction in patient (all tasks listed except Task 353).

To accomplish these activities the student must have a detailed knowledge of the subject category, covering the appropriate technical or special terms, facts, equipment, and/or procedures which are part of this discipline and are required for successful completion of the activities listed above.

Cross Reference Footnotes: See The Following Curriculum Objectives:
Lower scale value appears in: 218.
Same scale value appears in level 4.
Higher scale value appears in: 220.

* 503 504 505 506 507 508 509 510 511 512 513 514 515 516 517 518 519 526.

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Type of Objective Knowledge Factor IV No. 220
Skill or Knowledge Category 11734800 Scale Value 3.5
Occupation Patient Care Technician Level 2
Refers to Task Code No(s).: 296

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to demonstrate mastery of the following subject area

Shock and Trauma

at a level of awareness and depth of understanding adequate to the proper performance of the following activities:

1. In emergency situation, being able to recognize the symptoms of a patient suffering from shock or trauma; selecting appropriate first aid or emergency care procedures; evaluating whether patient is responding (Task 296).

To accomplish these activities the student must have a detailed knowledge of the subject category, covering the appropriate technical or special terms, facts, equipment, and/or procedures which are part of this discipline and are required for successful completion of the activities listed above.

Cross Reference Footnotes: See The Following Curriculum Objectives:
Lower scale value appears in: 218 219.
Higher scale value appears in level 4 of patient care.

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Type of Objective Knowledge Factor III No. 221
Skill or Knowledge Category 11735000 Scale Value 1.5
Occupation Radiologic Technologist Level 3
Refers to Task Code No(s).: 372 373

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to demonstrate mastery of the following subject area

Surgery

at a level of awareness and depth of understanding adequate to the proper performance of the following activities:

1. In taking intravisceral or isolated operating room radiographs or radiographs for opaque foreign body search, being able to use details about operating room surgical procedures so as to set up equipment and carry out radiography in cooperation with operating room staff while the operation is in progress (Tasks 372, 373).

To accomplish these activities the student must have a detailed knowledge of the subject category, covering the appropriate technical or special terms, facts, equipment, and/or procedures which are part of this discipline and are required for successful completion of the activities listed above.

Cross Reference Footnote:
Same scale value appears in level 4.

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Type of Objective Knowledge Factor IV No. 222

Skill or Knowledge Category 11735100 Scale Value 1.5

Occupation Patient Care Technician Level 2

Refers to Task Code No(s).: 65

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to demonstrate mastery of the following subject area

Operative Procedures (also includes biopsy, removal of tumors, removal of organs, Caesarian section, removal of drains)

at a level of awareness and depth of understanding adequate to the proper performance of the following activities:

1. In preparing specimens for transportation to laboratory, being able to use details about biopsy procedures so as to receive specimens and prepare them in cooperation with physician who obtains cell or tissue biopsies (Task 65).

To accomplish these activities the student must have a detailed knowledge of the subject category, covering the appropriate technical or special terms, facts, equipment, and/or procedures which are part of this discipline and are required for successful completion of the activities listed above.

Cross Reference Footnotes: See The Following Curriculum Objectives:
Same scale value appears in: 223.
Higher scale value appears in level 4 of patient care.

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Type of Objective Knowledge Factor III No. 223

Skill or Knowledge Category 11735100 Scale Value 1.5

Occupation Radiologic Technologist Level 3

Refers to Task Code No(s).: 371 379 464

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to demonstrate mastery of the following subject area

Operative Procedures (also includes biopsy, removal of tumors, removal of organs, Caesarian section, removal of drains)

at a level of awareness and depth of understanding adequate to the proper performance of the following activities:

1. In taking operative cholangiograms, pancreatograms, carrying out radiographic duties in connection with bronchoscopy, needle lung biopsy, or providing technical assistance for biopsies, being able to use details about operative procedures so as to check and set up equipment or materials and carry out technical functions in cooperation with physician in charge (Tasks 371, 379, 464).

To accomplish these activities the student must have a detailed knowledge of the subject category, covering the appropriate technical or special terms, facts, equipment, and/or procedures which are part of this discipline and are required for successful completion of the activities listed above.

Cross Reference Footnotes: See The Following Curriculum Objectives:
Same scale value appears in: 222 and level 4.

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Type of Objective Knowledge **Factor** III **No.** 224
Skill or Knowledge Category 11735300 **Scale Value** 1.5
Occupation Radiologic Technologist **Level** 3
Refers to Task Code No(s).: 370

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s)

Content: A graduate of the program at this educational level must be able to demonstrate mastery of the following subject area

Repair Surgery (includes plastic surgery, pedicle revision, surgical graft, anastomosis, fistulization, open reduction, fixation, fusion, stabilization)

at a level of awareness and depth of understanding adequate to the proper performance of the following activities:

1. In taking operative orthopedic radiographs such as in hip pinning, being able to use details about operating room repair surgery procedures so as to set up equipment and carry out radiography in cooperation with operating room staff (Task 370).

To accomplish these activities the student must have a detailed knowledge of the subject category, covering the appropriate technical or special terms, facts, equipment, and/or procedures which are part of this discipline and are required for successful completion of the activities listed above.

Cross Reference Footnote:
Same scale value appears in level 4.

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Type of Objective Knowledge Factor IV No. 225
Skill or Knowledge Category 11735400 Scale Value 1.5
Occupation Patient Care Technician Level 2
Refers to Task Code No(s).: 18 65 182

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to demonstrate mastery of the following subject area

Introductory Procedures (includes injections, transfusion, irrigation, catheterization, intubation, tracheotomy)

at a level of awareness and depth of understanding adequate to the proper performance of the following activities:

1. In drawing blood from a patient's vein, being able to apply information on introductory procedures in order to properly use materials, select site, make puncture, check needle position, and draw proper amount of blood (Task 18).
2. Being able to use details about introductory procedures for obtaining specimens such as extravascular body fluids, washings, or biopsies to be ready to receive specimens and prepare them in cooperation with the physician carrying out the procedures (Task 65).
3. In setting up and using suction machine, being able to apply details about catheterization and tracheotomy to properly insert suction catheter into tracheostomy and clear passage (Task 182).

To accomplish these activities the student must have a detailed knowledge of the subject category, covering the appropriate technical or special terms, facts, equipment, and/or procedures which are part of this discipline and are required for successful completion of the activities listed above.

Cross Reference Footnotes: See The Following Curriculum Objectives:
Same scale value appears in: 226 227.
Higher scale value appears in: 228 229 230.

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Type of Objective Knowledge Factor VI No. 226
Skill or Knowledge Category 11735400 Scale Value 1.5
Occupation Quality Assurance Aide Level 1
Refers to Task Code No(s).: 260 304

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to demonstrate mastery of the following subject area

Introductory Procedures (includes injections, transfusion, irrigation, catheterization, intubation, tracheotomy)

at a level of awareness and depth of understanding adequate to the proper performance of the following activities:

1. In preparing a hypodermic needle with injection dose as ordered or according to standard amounts, being able to apply information on injection procedures in order to properly use the materials involved and prepare syringes (Tasks 260, 304).

To accomplish these activities the student must have a detailed knowledge of the subject category, covering the appropriate technical or special terms, facts, equipment, and/or procedures which are part of this discipline and are required for successful completion of the activities listed above.

Cross Reference Footnotes: See The Following Curriculum Objectives:
Same scale value appears in: 225 227.
Higher scale value appears in: 228 229 230.

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Type of Objective Knowledge Factor III No. 227
Skill or Knowledge Category 11735400 Scale Value 1.5
Occupation Radiologic Technologist Level 3
Refers to Task Code No(s).: 353 377 378 380 382 383 385 386 387 388 389 390 463 497 499 500 501 502 503 504 505 506 507 508 509 510 511 512 513 514 515 516 517 518 519 526
Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to demonstrate mastery of the following subject area

Introductory Procedures (includes injections, transfusion, irrigation, catheterization, intubation, tracheotomy)

at a level of awareness and depth of understanding adequate to the proper performance of the following activities:

1. In participating in meeting of diagnostic x-ray department technologists, being able to comprehend, raise issues, or participate in any discussion dealing with introductory procedures as they affect preparation of materials, cooperation with radiologist, and caring for patient in connection with radiographic examinations (Task 353).

2. In radiographic examinations, being able to use details about the introductory procedures to be used, such as intravenous injection or infusion of contrast, use of bronchoscope or catheter to instill contrast, percutaneous injection or catheterization in angiography, direct needle puncture, catheterization of urinary tract, sinus tracts, fistulas, brain or spinal puncture, pneumography, to anticipate the materials to be used; being able to prepare or check materials, assist or cooperate with physician or staff member carrying out procedures; being able to properly handle and position patient, select technical factors, and respond to patient's reactions (all tasks listed except Task 353 as appropriate).

3. In taking barium enema, intussusception or defecography radiographs, being able to use details about the use of enemas or balloon catheters to explain procedure, prepare patient, insert enema or balloon catheter in rectum, administer enema as ordered, respond to patient's reactions, remove and dispose of enema or balloon catheter, handle and position patient for radiography, cooperate with radiologist for fluoroscopy (Tasks 383, 500).

To accomplish these activities the student must have a detailed knowledge of the subject category, covering the appropriate technical or special terms, facts, equipment, and/or procedures which are part of this discipline and are required for successful completion of the activities listed above.

Cross Reference Footnotes: See The Following Curriculum Objectives:
Same scale value appears in: 225 226.
Higher scale value appears in: 228 229 230.

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Type of Objective Knowledge Factor IV No. 228
Skill or Knowledge Category 11735400 Scale Value 2.5
Occupation Patient Care Technician Level 2
Refers to Task Code No(s).: 143 181

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to demonstrate mastery of the following subject area

Introductory Procedures (includes injections, transfusion, irrigation, catheterization, intubation, tracheotomy)

at a level of awareness and depth of understanding adequate to the proper performance of the following activities:

1. In catheterizing a male or female urethra, being able to use details about catheterization to explain procedure to patient, select appropriate size and type of catheter for patient's age, size, sex, and purpose of procedure, check catheter, insert properly, use appropriately, and recognize signs of problem with procedure (Tasks 143, 181).

To accomplish these activities the student must have a detailed knowledge of the subject category, covering the appropriate technical or special terms, facts, equipment, and/or procedures which are part of this discipline and are required for successful completion of the activities listed above.

Cross Reference Footnotes: See The Following Curriculum Objectives:
Lower scale value appears in: 225 226 227.
Same scale value appears in: 229.
Higher scale value appears in: 230.

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Type of Objective Knowledge Factor III No. 229
Skill or Knowledge Category 11735400 Scale Value 2.5
Occupation Radiologic Technologist Level 3
Refers to Task Code No(s).: 465

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to demonstrate mastery of the following subject area

Introductory Procedures (includes injections, transfusion, irrigation, catheterization, intubation, tracheotomy)

at a level of awareness and depth of understanding adequate to the proper performance of the following activities:

1. In taking pelvic pneumograms and hysterosalpingograms, being able to use details about the introductory procedures involved, such as transvaginal, transuterine, transabdominal inducement of pneumoperitoneum, instillation of contrast, catheterization, in order to explain procedure, prepare or check materials, assist with catheterization and other procedures, respond to patient, assist after a decision to change procedure, properly handle and position patient, and select technical factors (Task 465).

To accomplish these activities the student must have a detailed knowledge of the subject category, covering the appropriate technical or special terms, facts, equipment, and/or procedures which are part of this discipline and are required for successful completion of the activities listed above.

Cross Reference Footnotes: See The Following Curriculum Objectives:
Lower scale value appears in: 225 226 227.
Same scale value appears in: 228.
Higher scale value appears in: 230 and level [illegible].

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Type of Objective Knowledge Factor IV No. 230

Skill or Knowledge Category 11735400 Scale Value 3.5

Occupation Patient Care Technician Level 2

Refers to Task Code No(s).: 133 296 299

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to demonstrate mastery of the following subject area

Introductory Procedures (includes injections, transfusion, irrigation catheterization, intubation, tracheotomy)

at a level of awareness and depth of understanding adequate to the proper performance of the following activities:

1. In administering medication subcutaneously, intramuscularly, or intracardially as an emergency procedure, being able to apply information on injections in order to select injection site based on purpose, size of dosage, type of medication, patient's age, size, and condition; being able to select and prepare materials, check dosage, expel air, insert needle, check for placement, inject dosage, and withdraw needle (Tasks 133, 296, 299).

To accomplish these activities the student must have a detailed knowledge of the subject category, covering the appropriate technical or special terms, facts, equipment, and/or procedures which are part of this discipline and are required for successful completion of the activities listed above.

Cross Reference Footnotes: See The Following Curriculum Objectives:
Lower scale value appears in: 225 226 227 228 229.
Higher scale value appears in level 4 of patient care.

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Type of Objective Knowledge Factor III No. 231
Skill or Knowledge Category 11735500 Scale Value 1.5
Occupation Radiologic Technologist Level 3
Refers to Task Code No(s).: 379

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to demonstrate mastery of the following subject area

Endoscopy (direct visual observation of bronchi, esophagus, duodenum, colon, etc. with an endoscope)

at a level of awareness and depth of understanding adequate to the proper performance of the following activities:

1. In carrying out radiologic technology for bronchoscopy, being able to use details about endoscopy to prepare or check materials, select technical factors, assist physician with procedure, respond to patient's reactions, and assist with removal of bronchoscope, and help care for patient (Task 379).

To accomplish these activities the student must have a detailed knowledge of the subject category, covering the appropriate technical or special terms, facts, equipment, and/or procedures which are part of this discipline and are required for successful completion of the activities listed above.

Cross Reference Footnotes:
Same scale value appears in level 4.
Higher scale value appears in level 4 of patient care.

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Type of Objective Knowledge Factor IV No. 232

Skill or Knowledge Category 11735600 Scale Value 1.5

Occupation Patient Care Technician Level 2

Refers to Task Code No(s).: 33

Is there Cross Reference? ...Yes( ) ...No(X) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to demonstrate mastery of the following subject area

Suture (also includes ligature, suture materials)

at a level of awareness and depth of understanding adequate to the proper performance of the following activities:

1. In removing patient's sutures, being able to apply information on purpose of sutures, how the sutured areas appear, how to remove, in order to judge whether to remove sutures or report problem; being able to remove sutures appropriately (Task 33).

To accomplish these activities the student must have a detailed knowledge of the subject category, covering the appropriate technical or special terms, facts, equipment, and/or procedures which are part of this discipline and are required for successful completion of the activities listed above.

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Type of Objective Knowledge Factor III No. 233

Skill or Knowledge Category 11735800 Scale Value 1.5

Occupation Radiologic Technologist Level 3

Refers to Task Code No(s).: 466 468

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to demonstrate mastery of the following subject area

Delivery Methods for Childbirth (also includes the circumstances governing the delivery method chosen such as abnormal presentation of the baby (transverse section, breech), medical history of mother)

at a level of awareness and depth of understanding adequate to the proper performance of the following activities:

1. In taking fetograms, amniograms, placentograms, or radiographs for pelvimetry, being able to use details about delivery methods for childbirth to anticipate or judge the patient's stage of labor and decide whether to proceed with radiography, have patient taken to obstetrics or report emergency; being able to respond with proper sterile procedures if there is rupture of amniotic membranes, encourage patient to relax and not bear down at early stage of labor, or otherwise respond to an emergency (Tasks 466, 468).

To accomplish these activities the student must have a detailed knowledge of the subject category, covering the appropriate technical or special terms, facts, equipment, and/or procedures which are part of this discipline and are required for successful completion of the activities listed above.

Cross Reference Footnote:

Same scale value appears in level 4.

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Type of Objective Knowledge Factor III No. 234

Skill or Knowledge Category 11736000 Scale Value 1.5

Occupation Radiologic Technologist Level 3

Refers to Task Code No(s).: 370 371 372 373 463 498 511 513 514 516 518 519 526

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to demonstrate mastery of the following subject area

Anesthesiology (includes open anesthetics, semiopen, insufflation, absorption, intravenous, infiltration, field and nerve block methods)

at a level of awareness and depth of understanding adequate to the proper performance of the following activities:

1. In taking radiographs when patient may be under anesthesia, being able to use details about anesthesiology to determine whether explosive gases will be used and check or select and use x-ray equipment appropriately, discuss appropriate timing of procedures, and/or arrange signals with anesthesiologist for making radiographs when respiration has been arrested as appropriate (all tasks listed).

To accomplish these activities the student must have a detailed knowledge of the subject category, covering the appropriate technical or special terms, facts, equipment, and/or procedures which are part of this discipline and are required for successful completion of the activities listed above.

Cross Reference Footnote:
Same scale value appears in level 4.

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Type of Objective Knowledge Factor III No. 235

Skill or Knowledge Category 1173700 Scale Value 2.5

Occupation Radiologic Technologist Level 3

Refers to Task Code No(s).: 353 355 356 357 358 359 360 361 362 363 364 365 366 367 368 374 466 468

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to demonstrate mastery of the following subject area

First Aid and Care (overview of the approach to and nature of various concepts and procedures involved)

at a level of awareness and depth of understanding adequate to the proper performance of the following activities:

1. In participating in meeting of diagnostic x-ray department technologists, being able to comprehend, raise issues, or participate in any discussion dealing with first aid and care as it affects the condition of patients or their response to radiographic examinations (Task 353).
2. In taking "plain film" radiographs of non-pedicatric patients where performer may be alone with the patient for the examination, being able to use details of general first aid and care to notice and respond to signs of emergency, accident, distress, fainting, loss of consciousness, and decide when to call appropriate physician, when to provide emergency first aid (all tasks listed except Task 353).

To accomplish these activities the student must have a detailed knowledge of the subject category, covering the appropriate technical or special terms, facts, equipment, and/or procedures which are part of this discipline and are required for successful completion of the activities listed above.

Cross Reference Footnotes: See The Following Curriculum Objectives:
Higher scale value appears in: 236 237.

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Type of Objective Knowledge Factor III No. 236

Skill or Knowledge Category 11737000 Scale Value 3.5

Occupation Radiologic Technologist Level 3

Refers to Task Code No(s).: 509 510 511 512 513 514 515 516 517 519

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to demonstrate mastery of the following subject area

First Aid and Care (overview of the approach to and nature of the various concepts and procedures involved)

at a level of awareness and depth of understanding adequate to the proper performance of the following activities:

1. In taking angiograms of any patient, being able to use details of general first aid and care to notice symptoms of emergency or adverse patient reaction to contrast or procedure and report; being able to cooperate immediately and appropriately with other staff members in assisting with emergency care (all tasks listed).

To accomplish these activities the student must have a detailed knowledge of the subject category, covering the appropriate technical or special terms, facts, equipment, and/or procedures which are part of this discipline and are required for successful completion of the activities listed above.

Cross Reference Footnotes: See The Following Curriculum Objectives:

Lower scale value appears in: 235.

Same scale value appears in level 4.

Higher scale value appears in: 237.

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Type of Objective Knowledge Factor IV No. 237
Skill or Knowledge Category 11737000 Scale Value 7.0
Occupation Patient Care Technician Level 2
Refers to Task Code No(s).: 296

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to demonstrate mastery of the following subject area

First Aid and Care (overview of the approach to and nature of various concepts and procedures involved)

at a level of awareness and depth of understanding adequate to the proper performance of the following activities:

1. Using comprehension of general principles of first aid and care and appropriate detailed information to determine when a situation calling for first aid and emergency care exists, to determine the nature and severity of the symptoms, and to select the appropriate procedures (Task 296).

To accomplish these activities the student must have a detailed knowledge of the subject category, covering the appropriate technical or special terms, facts, equipment, and/or procedures which are part of this discipline and are required for successful completion of the activities listed above.

Cross Reference Footnotes: See The Following Curriculum Objectives:
Lower scale value appears in: 235 236.
Same scale value appears in level 4 of patient care.

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Type of Objective Knowledge Factor IV No. 238
Skill or Knowledge Category 11737100 Scale Value 1.5
Occupation Patient Care Aide Level 1
Refers to Task Code No(s).: 283 295

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to demonstrate mastery of the following subject area

Bandages, Dressings, Tourniquets, and Splints

at a level of awareness and depth of understanding adequate to the proper performance of the following activities:

1. In changing dry dressing or reinforcing wet dressing, being able to use appropriate bandages and dressings properly (Task 283).
2. In participating in meeting of diagnostic x-ray department nursing staff, being able to comprehend, raise issues, or participate in any discussion dealing with bandages, dressings, tourniquets, and splints as they affect patient care (Task 295).

To accomplish these activities the student must have a detailed knowledge of the subject category, covering the appropriate technical or special terms, facts, equipment, and/or procedures which are part of this discipline and are required for successful completion of the activities listed above.

Cross Reference Footnotes: See The Following Curriculum Objectives:
Same scale value appears in: 239 240.
Higher scale value appears in: 241 242.

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Type of Objective Knowledge Factor IV No. 239
Skill or Knowledge Category 11737100 Scale Value 1.5
Occupation Patient Care Technician Level 2
Refers to Task Code No(s).: 33 522

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to demonstrate mastery of the following subject area

Bandages, Dressings, Tourniquets, and Splints

at a level of awareness and depth of understanding adequate to the proper performance of the following activities:

1. Using appropriate bandages and dressings properly to dress and bandage a suture wound, or prepare and apply a pressure dressing to an arterial or venous puncture site (Tasks 33, 522).

To accomplish these activities the student must have a detailed knowledge of the subject category, covering the appropriate technical or special terms, facts, equipment, and/or procedures which are part of this discipline and are required for successful completion of the activities listed above.

Cross Reference Footnotes: See The Following Curriculum Objectives:
Same scale value appears in: 238 240.
Higher scale value appears in: 241 242.

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Type of Objective Knowledge Factor III No. 240

Skill or Knowledge Category 11737100 Scale Value 1.5

Occupation Radiologic Technologist Level 3

Refers to Task Code No(s).: 504 505 506 507 508 509 510 511 512 514 515 517 518

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to demonstrate mastery of the following subject area

Bandages, Dressings, Tourniquets, and Splints

at a level of awareness and depth of understanding adequate to the proper performance of the following activities:

1. Assisting with application of various types of tourniquets, sterile dressings for puncture or trephine sites, padding for puncture needle as ordered (all tasks listed).
2. Determining the proper bandages and dressings to be used in connection with the diagnostic examination on the requisition and checking that they are present on the procedure tray (all tasks listed as appropriate).

To accomplish these activities the student must have a detailed knowledge of the subject category, covering the appropriate technical or special terms, facts, equipment, and/or procedures which are part of this discipline and are required for successful completion of the activities listed above.

Cross Reference Footnotes: See The Following Curriculum Objectives:

Same scale value appears in: 238 239.

Higher scale value appears in: 241 242 and level 4.

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Type of Objective Knowledge Factor IV No. 241
Skill or Knowledge Category 11737100 Scale Value 2.5
Occupation Patient Care Technician Level 2
Refers to Task Code No(s).: 156

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to demonstrate mastery of the following subject area

Bandages, Dressings, Tourniquets, and Splints

at a level of awareness and depth of understanding adequate to the proper performance of the following activities:

1. Selecting and applying appropriate bandages, dressings, and slings in proper manner to wounds, burns, or openings for catheters on orders (Task 156).

To accomplish these activities the student must have a detailed knowledge of the subject category, covering the appropriate technical or special terms, facts, equipment, and/or procedures which are part of this discipline and are required for successful completion of the activities listed above.

Cross Reference Footnotes: See The Following Curriculum Objectives:
Lower scale value appears in: 238 239 240.
Higher scale value appears in: 242.

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Type of Objective Knowledge Factor IV No. 242
Skill or Knowledge Category 11737100 Scale Value 3.5
Occupation Patient Care Technician Level 2
Refers to Task Code No(s).: 296

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to demonstrate mastery of the following subject area

Bandages, Dressings, Tourniquets, and Splints

at a level of awareness and depth of understanding adequate to the proper performance of the following activities:

1. In providing first aid in an emergency, being able to select and apply proper bandages and dressings in appropriate manner,and apply sterile packing or tourniquet to arrest bleeding (Task 296).

To accomplish these activities the student must have a detailled knowledge of the subject category, covering the appropriate technical or special terms, facts, equipment, and/or procedures which are part of this discipline and are required for successful completion of the activities listed above.

Cross Reference Footnotes: See The Following Curriculum Objectives:
Lower scale value appears in: 238 239 240 241.
Same scale value appears in level 4 of patient care.

CURRICULUM OBJECTIVE SHEET Page 1 of 1

Type of Objective Knowledge Factor IV No. 243

Skill or Knowledge Category 11737200 Scale Value 1.5

Occupation Patient Care Aide Level 1

Refers to Task Code No(s).: 521

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to demonstrate mastery of the following subject area

Hemorrhage and Bleeding and Their Arrest

at a level of awareness and depth of understanding adequate to the proper performance of the following activities:

1. Using details about bleeding and its arrest to explain the use of digital or manual pressure at an arterial or venous puncture site to patient; being able to apply pressure appropriately to site as ordered, check that bleeding has subsided, decide whether to continue, instruct patient in how to deal with new onset of bleeding (Task 521).

To accomplish these activities the student must have a detailed knowledge of the subject category, covering the appropriate technical or special terms, facts, equipment, and/or procedures which are part of this discipline and are required for successful completion of the activities listed above.

Cross Reference Footnotes: See The Following Curriculum Objectives:

Same scale value appears in: 244.

Higher scale value appears in: 245.

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Type of Objective Knowledge Factor IV No. 244
Skill or Knowledge Category 11737200 Scale Value 1.5
Occupation Patient Care Technician Level 2
Refers to Task Code No(s).: 522

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to demonstrate mastery of the following subject area

Hemorrhage and Bleeding and Their Arrest

at a level of awareness and depth of understanding adequate to the proper performance of the following activities:

1. Using details about bleeding and its arrest to decide whether to apply manual pressure to arterial or venous puncture site that has started to bleed again; being able to apply pressure appropriately to site, and explain to patient what is happening (Task 522).

To accomplish these activities the student must have a detailed knowledge of the subject category, covering the appropriate technical or special terms, facts, equipment, and/or procedures which are part of this discipline and are required for successful completion of the activities listed above.

Cross Reference Footnotes: See The Following Curriculum Objectives:
Same scale value appears in: 243.
Higher scale value appears in: 245.

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Type of Objective Knowledge Factor IV No. 245
Skill or Knowledge Category 11737200 Scale Value 3.5
Occupation Patient Care Technician Level 2
Refers to Task Code No(s).: 296

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to demonstrate mastery of the following subject area

Hemorrhage and Bleeding and Their Arrest

at a level of awareness and depth of understanding adequate to the proper performance of the following activities:

1. In providing first aid in an emergency, being able to assess seriousness of bleeding, decide whether to apply direct pressure, sterile packing or tourniquet; in applying proper technique, assessing whether bleeding is being properly arrested (Task 296).

To accomplish these activities the student must have a detailed knowledge of the subject category, covering the appropriate technical or special terms, facts, equipment, and/or procedures which are part of this discipline and are required for successful completion of the activities listed above.

Cross Reference Footnotes: See The Following Curriculum Objectives:
Lower scale value appears in: 243 244.
Same scale value appears in level 4 of patient care.

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Type of Objective Knowledge Factor IV No. 246
Skill or Knowledge Category 11737300 Scale Value 1.5
Occupation Patient Care Aide Level 1
Refers to Task Code No(s).: 153 155 295

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to demonstrate mastery of the following subject area

Handling and Transportation of the Sick or Wounded

at a level of awareness and depth of understanding adequate to the proper performance of the following activities:

1. In assisting with restraining or immobilizing patient or in assisting patient in bathroom, being able to apply information on handling of sick patient as appropriate to the patient's condition (Tasks 153, 155).

2. In participating in meeting of diagnostic x-ray department nursing staff, being able to comprehend, raise issues, or participate in any discussion dealing with the handling and transportation of sick or wounded patients (Task 295).

To accomplish these activities the student must have a detailed knowledge of the subject category, covering the appropriate technical or special terms, facts, equipment, and/or procedures which are part of this discipline and are required for successful completion of the activities listed above.

Cross Reference Footnotes: See The Following Curriculum Objectives:
Higher scale value appears in: 247 248 249 250 251 252 253 254.

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Type of Objective Knowledge Factor IV No. 247

Skill or Knowledge Category 11737300 Scale Value 2.5

Occupation Patient Care Aide Level 1

Refers to Task Code No(s).: 166 190 282

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to demonstrate mastery of the following subject area

Handling and Transportation of the Sick or Wounded

at a level of awareness and depth of understanding adequate to the proper performance of the following activities:

1. Applying information on the transportation of sick or wounded patients to properly transport a patient in a wheelchair or on a stretcher as appropriate to the patient's age and condition (Tasks 166, 190, 282).

2. Applying information on handling sick or wounded patients to transfer patient to or from wheelchair, stretcher, bed, table, or other location as appropriate to the patient's condition, or assist with dressing and undressing (Tasks 190, 282).

To accomplish these activities the student must have a detailed knowledge of the subject category, covering the appropriate technical or special terms, facts, equipment, and/or procedures which are part of this discipline and are required for successful completion of the activities listed above.

Cross Reference Footnotes: See The Following Curriculum Objectives:
Lower scale value appears in: 246.
Same scale value appears in: 248 249.
Higher scale value appears in: 250 251 252 253 254.

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Type of Objective Knowledge Factor IV No. 248
Skill or Knowledge Category 11737300 Scale Value 2.5
Occupation Patient Care Technician Level 2
Refers to Task Code No(s).: 243

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to demonstrate mastery of the following subject area

Handling and Transportation of the Sick or Wounded

at a level of awareness and depth of understanding adequate to the proper performance of the following activities:

1. In restraining a patient, being able to use information on the handling of sick patients to assess the type of restraint needed and apply restraints appropriate to the patient's condition and behavior (Task 243).

To accomplish these activities the student must have a detailed knowledge of the subject category, covering the appropriate technical or special terms, facts, equipment, and/or procedures which are part of this discipline and are required for successful completion of the activities listed above.

Cross Reference Footnotes: See The Following Curriculum Objectives:
Lower scale value appears in: 246.
Same scale value appears in: 247 249.
Higher scale value appears in: 250 251 252 253 254.

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Type of Objective Knowledge Factor III No. 249
Skill or Knowledge Category 11737300 Scale Value 2.5
Occupation Radiologic Technologist Level 3
Refers to Task Code No(s).: 369

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to demonstrate mastery of the following subject area

Handling and Transportation of the Sick or Wounded

at a level of awareness and depth of understanding adequate to the proper performance of the following activities:

1. In preparing for bedside radiography and selecting appropriate equipment and materials, being able to use information on the patient's condition and on the handling of such patients to make appropriate selections of materials or to decide to ask for staff assistance with positioning (Task 369).

To accomplish these activities the student must have a detailed knowledge of the subject category, covering the appropriate technical or special terms, facts, equipment, and/or procedures which are part of this discipline and are required for successful completion of the activities listed above.

Cross Reference Footnotes: See The Following Curriculum Objectives:
Lower scale value appears in: 246.
Same scale value appears in: 247 248.
Higher scale value appears in: 250 251 252 253 254.

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Type of Objective Knowledge Factor IV No. 250
Skill or Knowledge Category 11737300 Scale Value 3.5
Occupation Patient Care Aide Level 1
Refers to Task Code No(s).: 193 199 283 490

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to demonstrate mastery of the following subject area

Handling and Transportation of the Sick or Wounded

at a level of awareness and depth of understanding adequate to the proper performance of the following activities:

1. Applying information about a patient's condition and about the handling and transportation of sick or wounded patients to appropriately arrange for escort or transportation of a patient to or from examination room, properly assist patient to or from wheelchair, stretcher, examination table, properly position patient in preparation for physician's examination or as needed, properly assist patient to dress or undress, or to immobilize or wrap a pediatric patient appropriately (Tasks 193, 199, 283, 490).

To accomplish these activities the student must have a detailed knowledge of the subject category, covering the appropriate technical or special terms, facts, equipment, and/or procedures which are part of this discipline and are required for successful completion of the activities listed above.

Cross Reference Footnotes: See The Following Curriculum Objectives:
Lower scale value appears in: 246 247 248 249.
Same scale value appears in: 251 252.
High scale value appears in: 253 254.

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Type of Objective Knowledge Factor IV No. 251
Skill or Knowledge Category 11737300 Scale Value 3.5
Occupation Patient Care Technician Level 2
Refers to Task Code No(s).: 156

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to demonstrate mastery of the following subject area

Handling and Transportation of the Sick or Wounded

at a level of awareness and depth of understanding adequate to the proper performance of the following activities:

1. Applying information about a patient's condition and about the handling of sick or wounded patients to assist, position, and handle patients properly while irrigating, cleaning, dressing or redressing wounds, burns, or openings for catheter without injuring patient or causing unnecessary pain (Task 156).

To accomplish these activities the student must have a detailed knowledge of the subject category, covering the appropriate technical or special terms, facts, equipment, and/or procedures which are part of this discipline and are required for successful completion of the activities listed above.

Cross Reference Footnotes: See The Following Curriculum Objectives:
Lower scale value appears in: 246 247 248 249.
Same scale value appears in: 250 252.
Higher scale value appears in: 253 254.

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Type of Objective Knowledge Factor III No. 252
Skill or Knowledge Category 11737300 Scale Value 3.5
Occupation Radiologic Technologist Level 3
Refers to Task Code No(s).: 370 371 464

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to demonstrate mastery of the following subject area

Handling and Transportation of the Sick or Wounded

at a level of awareness and depth of understanding adequate to the proper performance of the following activities:

1. In taking operative orthopedic radiographs, operative cholangiograms, pancreatograms, or in providing technical assistance for fluoroscopic examinations, being able to use infomation about the handling of sick or wounded patients to determine and indicate what techniques should be used to position patient and/or to assist in positioning patient as appropriate to patient's condition (Tasks 370, 371, 464).

To accomplish these activities the student must have a detailed knowledge of the subject category, covering the appropriate technical or special terms, facts, equipment, and/or procedures which are part of this discipline and are required for successful completion of the activities listed above.

Cross Reference Footnotes: See The Following Curriculum Objectives:
Lower scale value appears in: 246 247 248 249.
Same scale value appears in: 250 251.
Higher scale value appears in: 253 254.

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Type of Objective Knowledge Factor IV No. 253

Skill or Knowledge Category 11737300 Scale Value 5.5

Occupation Patient Care Technician Level 2

Refers to Task Code No(s).: 296

Is there Cross Reference? ...Yes(x) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to demonstrate mastery of the following subject area

Handling and Transportation of the Sick or Wounded

at a level of awareness and depth of understanding adequate to the proper performance of the following activities:

1. In providing first aid in an emergency, being able to select, after assessment of patient's condition, the proper ways to handle and/or transport patient so as to avoid further injury, aggravation of symptoms, or unnecessary pain to patient, and carry out emergency care procedures (Task 296).

To accomplish these activities the student must have a detailed knowledge of the subject category, covering the appropriate technical or special terms, facts, equipment, and/or procedures which are part of this discipline and are required for successful completion of the activities listed above.

Cross Reference Footnotes: See The Following Curriculum Objectives:

Lower scale value appears in: 246 247 248 249 250 251 252.

Same scale value appears in: 254 and level 4.

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Type of Objective Knowledge Factor III No. 254
Skill or Knowledge Category 11737300 Scale Value 5.5
Occupation Radiologic Technologist Level 3
Refers to Task Code No(s).: 353 355 356 357 358 359 360 361 362 363 364 365 366 367 368 374 375 376 377 378 379 380 381 382 383 384 385 386 387 388 389 390 463 465 466 467 468 491 492 493 494 495 496 497 498 499 500 (*continued below)
Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to demonstrate mastery of the following subject area

Handling and Transportation of the Sick or Wounded

at a level of awareness and depth of understanding adequate to the proper performance of the following activities:

1. In participating in meeting of diagnostic x-ray department technologists, being able to comprehend, raise issues, or participate in any discussion dealing with the handling and transportation of sick or wounded patients during radiographic examinations (Task 353).

2. In taking radiographs, being able to use details about the proper way to handle and transport sick or wounded patients so as to properly assist or transfer patient to or from wheelchair, stretcher, examination table, lavatory, determine when to request assistance in moving patient, and to position and immobilize patient so as to avoid injury or unnecessary pain, based on the patient's age and condition (all tasks listed except Task 353).

To accomplish these activities the student must have a detailed knowledge of the subject category, covering the appropriate technical or special terms, facts, equipment, and/or procedures which are part of this discipline and are required for successful completion of the activities listed above.

Cross Reference Footnotes: See The Following Curriculum Objectives:
Lower scale value appears in: 246 247 248 249 250 251 252.
Same scale value appears in: 253 and level 4.

* 501 502 503 504 505 506 507 508 509 510 511 512 513 514 515 516 517 518 519 526.

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Type of Objective Knowledge Factor III No. 255

Skill or Knowledge Category 11737400 Scale Value 1.5

Occupation Radiologic Technologist Level 3

Refers to Task Code No(s).: 363 364 367 368 369 374 375 376 378 379 380 381 382 383 384 385 386 387 388 389 390 463 464 465 466 467 468 495 497 498 499 500 501 502 503 504 505 506 508 509 510 511 512 513 514 515 516 517 518 519 526

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to demonstrate mastery of the following subject area

Sprains, Strains, Fractures and Their Healing

at a level of awareness and depth of understanding adequate to the proper performance of the following activities:

1. In taking radiographs when the purpose is not directly connnected with sprains, strains or fractures, being able to take account of the presence of accident injuries, unhealed or suspected fractures and apply details about sprains, strains, and fractures and their healing to know when to ask for assistance in positioning patient; being able to properly and safely move, position, immobilize patient and/or account for presence of casts and splints (all tasks listed except Task 369).
2. In preparing for bedside radiography and selecting appropriate equipment and materials, being able to make selection taking into account the presence of sprains, strains, or fractures; being able to judge when to arrange for staff to position patient for radiography (Task 369).

To accomplish these activities the student must have a detailed knowledge of the subject category, covering the appropriate technical or special terms, facts, equipment, and/or procedures which are part of this discipline and are required for successful completion of the activities listed above.

Cross Reference Footnotes: See The Following Curriculum Objectives:
Higher scale value appears in: 256 257.

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Type of Objective Knowledge Factor III No. 256

Skill or Knowledge Category 11737400 Scale Value 2.5

Occupation Radiologic Technologist Level 3

Refers to Task Code No(s).: 353 355 356 357 358 359 360 361 362 365 366 370 377 491 492 493 494 496 507

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to demonstrate mastery of the following subject area

Sprains, Strains, Fractures and Their Healing

at a level of awareness and depth of understanding adequate to the proper performance of the following activities:

1. In participating in meeting of diagnostic x-ray department technologists, being able to comprehend, raise issues, or participate in any discussion dealing with sprains, strains, fractures and their healing as it affects patient care during radiographic examinations (Task 353).
2. In taking "plain films" of the bones, vertebral column, or skull, or in taking operative orthopedic radiographs, arthrograms, diskograms, or peripheral angiograms, being able to use details about sprains, strains, fractures, and their healing to deal with patients with suspected fracture, unhealed fracture, sprains, or strains, such as determining when to make sure a physician is available to position patient, or being able to properly move, handle, position, and immobilize patient to avoid further injury or unnecessary pain; being able to take account of casts and splints in selecting technical factors; being able to select focal spot size to provide diagnostic information (all tasks listed except Task 353).

To accomplish these activities the student must have a detailed knowledge of the subject category, covering the appropriate technical or special terms, facts, equipment, and/or procedures which are part of this discipline and are required for successful completion of the activities listed above.

Cross Reference Footnotes: See The Following Curriculum Objectives:
Lower scale value appears in: 255.
Same scale value appears in level 4.
Higher scale value appears in: 257.

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Type of Objective Knowledge Factor IV No. 257

Skill or Knowledge Category 11737400 Scale Value 3.5

Occupation Patient Care Technician Level 2

Refers to Task Code No(s).: 296

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to demonstrate mastery of the following subject area

Sprains, Strains, Fractures and Their Healing

at a level of awareness and depth of understanding adequate to the proper performance of the following activities:

1. In providing first aid in an emergency, being able to assess whether patient's symptoms indicate possible sprain, strain, or fracture, and decide how to position and care for patient to minimize damage or danger to patient (Task 296).

To accomplish these activities the student must have a detailed knowledge of the subject category, covering the appropriate technical or special terms, facts, equipment, and/or procedures which are part of this discipline and are required for successful completion of the activities listed above.

Cross Reference Footnotes: See The Following Curriculum Objectives:
Lower scale value appears in: 255 256.
Same scale value appears in level 4 of patient care.

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Type of Objective Knowledge Factor IV No. 258

Skill or Knowledge Category 11737600 Scale Value 7.0

Occupation Patient Care Technician Level 2

Refers to Task Code No(s).: 296

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to demonstrate mastery of the following subject area

Resuscitation

at a level of awareness and depth of understanding adequate to the proper performance of the following activities:

1. In providing first aid in an emergency, being able to use information about resuscitation to determine whether patient requires resuscitive measures, select procedure appropriate to patient's condition, carry out resuscitation procedure and assess patient's response (Task 296).

To accomplish these activities the student must have a detailed knowledge of the subject category, covering the appropriate technical or special terms, facts, equipment, and/or procedures which are part of this discipline and are required for successful completion of the activities listed above.

Cross Reference Footnote:
Same scale value appears in level 4 of patient care.

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Type of Objective Knowledge Factor IV No. 259

Skill or Knowledge Category 11737700 Scale Value 1.5

Occupation Patient Care Technician Level 2

Refers to Task Code No(s).: 522

Is there Cross Reference? ...Yes(x) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to demonstrate mastery of the following subject area

Wounds and Their Healing (also includes operative incisions)

at a level of awareness and depth of understanding adequate to the proper performance of the following activities:

1. In applying pressure dressing to arterial or venous puncture site, being able to apply information about wounds and their healing to determine whether there is a problem such as hematoma, swelling (Task 522).

To accomplish these activities the student must have a detailed knowledge of the subject category, covering the appropriate technical or special terms, facts, equipment, and/or procedures which are part of this discipline and are required for successful completion of the activities listed above.

Cross Reference Footnotes: See The Following Curriculum Objectives:

Same scale value appears in: 260.

Higher scale value appears in: 261 262 263 264.

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Type of Objective Knowledge Factor III No. 260
Skill or Knowledge Category 11737700 Scale Value 1.5
Occupation Radiologic Technologist Level 3
Refers to Task Code No(s).: 353 355 356 357 358 359 360 361 362 363 364 365 366 367 368 369 374 375 376 377 378 379 380 381 382 383 384 385 386 387 388 389 390 463 464 465 466 467 468 491 492 493 494 495 496 497 498 499 (*continued below)
Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to demonstrate mastery of the following subject area

Wounds and Their Healing (also includes operative incisions)

at a level of awareness and depth of understanding adequate to the proper performance of the following activities:

1. In participating in meeting of diagnostic x-ray department technologists, being able to comprehend, raise issues, or participate in any discussion dealing with wounds or operative incisions and their healing as it affects patient care during radiographic examinations (Task 353).

2. In taking radiographs or preparing for radiographic examinations, being able to use details about wounds or unhealed operative incisions when listed on requisition sheet to properly handle and position patient, apply immobilization devices safely, and arrange for dressing or redressing (all tasks except Task 353).

To accomplish these activities the student must have a detailed knowledge of the subject category, covering the appropriate technical or special terms, facts, equipment, and/or procedures which are part of this discipline and are required for successful completion of the activities listed above.

Cross Reference Footnotes: See The Following Curriculum Objectives:
Same scale value appears in: 259.
Higher scale value appears in: 261 262 263 264.

* 500 501 502 504 505 506 507 508 509 510 511 512 513 514 515 516 517 518 519 526.

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Type of Objective Knowledge Factor IV No. 261
Skill or Knowledge Category 11737700 Scale Value 2.5
Occupation Patient Care Technician Level 2
Refers to Task Code No(s).: 296

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to demonstrate mastery of the following subject area

Wounds and Their Healing (also includes operative incisions)

at a level of awareness and depth of understanding adequate to the proper performance of the following activities:

1. In providing first aid in an emergency, being able to use information about wounds to evaluate the nature and condition of a patient's wound, select appropriate first aid measures and apply (Task 296).

To accomplish these activities the student must have a detailed knowledge of the subject category, covering the appropriate technical or special terms, facts, equipment, and/or procedures which are part of this discipline and are required for successful completion of the activities listed above.

Cross Reference Footnotes: See The Following Curriculum Objectives:
Lower scale value appears in: 259 260.
Same scale value appears in: 262.
Higher scale value appears in: 263 264.

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Type of Objective Knowledge Factor III No. 262
Skill or Knowledge Category 11737700 Scale Value 2.5
Occupation Radiologic Technologist Level 3
Refers to Task Code No(s).: 503

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to demonstrate mastery of the following subject area

Wounds and Their Healing (also includes operative incisions)

at a level of awareness and depth of understanding adequate to the proper performance of the following activities:

1. In taking radiographs of external fistulae or sinus tracts, being able to use details about the way such openings or wounds manifest in the patient in the area of interest so as to properly care for patient, position and immobilize patient safely, recognize emergency signs, and select technical factors (Task 503).

To accomplish these activities the student must have a detailed knowledge of the subject category, covering the appropriate technical or special terms, facts, equipment, and/or procedures which are part of this discipline and are required for successful completion of the activities listed above.

Cross Reference Footnotes: See The Following Curriculum Objectives:
Lower scale value appears in: 259 260.
Same scale value appears in: 261 and level 4.
Higher scale value appears in: 363 364.

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Type of Objective Knowledge Factor IV No. 263
Skill or Knowledge Category 11737700 Scale Value 3.5
Occupation Patient Care Technician Level 2
Refers to Task Code No(s).: 156

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to demonstrate mastery of the following subject area

Wounds and Their Healing (also includes operative incisions)

at a level of awareness and depth of understanding adequate to the proper performance of the following activities:

1. Applying information on how wounds or operative incisions heal or show infection to evaluate healing and report suspicious appearance in connection with orders to irrigate, clean, or dress a wound or incision (Task 156).

To accomplish these activities the student must have a detailed knowledge of the subject category, covering the appropriate technical or special terms, facts, equipment, and/or procedures which are part of this discipline and are required for successful completion of the activities listed above.

Cross Reference Footnotes: See The Following Curriculum Objectives:
Lower scale value appears in: 259 260 261 262.
Higher scale value appears in: 264.

CURRICULUM OBJECTIVE SHEET Page 1 of 1

Type of Objective Knowledge Factor IV No. 264

Skill or Knowledge Category 11737700 Scale Value 5.5

Occupation Patient Care Technician Level 2

Refers to Task Code No(s).: 33

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to demonstrate mastery of the following subject area

Wounds and Their Healing (also includes operative incisions)

at a level of awareness and depth of understanding adequate to the proper performance of the following activities:

1. In removing patient's sutures, being able to apply information on how the suture wound appears during healing in order to judge whether to remove sutures or report problem (Task 33).

To accomplish these activities the student must have a detailed knowledge of the subject category, covering the appropriate technical or special terms, facts, equipment, and/or procedures which are part of this discipline and are required for successful completion of the activities listed above.

Cross Reference Footnotes: See The Following Curriculum Objectives:
Lower scale value appears in: 259 260 261 262 263.

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Type of Objective Knowledge Factor IV No. 265

Skill or Knowledge Category 11738000 Scale Value 1.5

Occupation Patient Care Aide Level 1

Refers to Task Code No(s).: 193 290

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to demonstrate mastery of the following subject area

Asepsis (concepts and techniques involved in the achievement of sterile condition; includes concurrent and terminal disinfection during surgery, aspects of sterilization of implements and equipment such as autoclaving).

at a level of awareness and depth of understanding adequate to the proper performance of the following activities:

1. Applying information about asepsis to swab with antiseptic solution an area to be incised or injected (Task 193).
2. Applying information about asepsis in handling items with sterile gloves so as to maintain sterile field or keep items or areas of the body free of contamination (Task 290).

To accomplish these activities the student must have a detailed knowledge of the subject category, covering the appropriate technical or special terms, facts, equipment, and/or procedures which are part of this discipline and are required for successful completion of the activities listed above.

Cross Reference Footnotes: See The Following Curriculum Objectives:

Same scale value appears in: 266 267 .

Higher scale value appears in: 268 269 270 271 272 273 274.

CURRICULUM OBJECTIVE SHEET Page 1 of 1

Type of Objective Knowledge Factor IV No. 266
Skill or Knowledge Category 11738000 Scale Value 1.5
Occupation Patient Care Technician Level 2
Refers to Task Code No(s).: 18

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to demonstrate mastery of the following subject area

Asepsis (concepts and techniques involved in achievement of sterile condition; includes concurrent and terminal disinfection during surgery, aspects of sterilization of implements and equipment such as autoclaving)

at a level of awareness and depth of understanding adequate to the proper performance of the following activities:

1. Applying information about asepsis to swab with antiseptic solution an area to be punctured, incised, or injected; handling items so as to maintain sterile condition (Task 18).

To accomplish these activities the student must have a detailed knowledge of the subject category, covering the appropriate technical or special terms, facts, equipment, and/or procedures which are part of this discipline and are required for successful completion of the activities listed above.

Cross Reference Footnotes: See The Following Curriculum Objectives:
Same scale value appears in: 265 267.
Higher scale value appears in: 268 269 270 271 272 273 274.

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Type of Objective Knowledge Factor VI No. 267
Skill or Knowledge Category 11738000 Scale Value 1.5
Occupation Quality Assurance Aide Level 1
Refers to Task Code No(s).: 180 260 304

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to demonstrate mastery of the following subject area

Asepsis (concepts and techniques involved in achievement of sterile condition; includes concurrent and terminal disinfection during surgery, aspects of sterilization of implements and equipment such as autoclaving)

at a level of awareness and depth of understanding adequate to the proper performance of the following activities:

1. In preparing materials for drawing blood, transporting blood samples, preparing hypodermic syringes with injection dosages, applying information about asepsis to maintain sterile integrity of materials (Tasks 180, 260, 304).

To accomplish these activities the student must have a detailed knowledge of the subject category, covering the appropriate technical or special terms, facts, equipment, and/or procedures which are part of this discipline and are required for successful completion of the activities listed above.

Cross Reference Footnotes: See The Following Curriculum Objectives:
Same scale value appears in: 265 266.
Higher scale value appears in: 268 269 270 271 272 273 274.

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Type of Objective Knowledge Factor IV No. 268
Skill or Knowledge Category 11738000 Scale Value 2.5
Occupation Patient Care Aide Level 1
Refers to Task Code No(s).: 153 283 295 521

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to demonstrate mastery of the following subject area

Asepsis (concepts and techniques involved in achievement of sterile condition; includes concurrent and terminal disinfection during surgery, aspects of sterilization of implements and equipment such as autoclaving)

at a level of awareness and depth of understanding adequate to the proper performance of the following activities:

1. In using sterile materials to wipe away blood from sterile areas or equipment, change or reinforce dressings, or apply pressure to puncture site, being able to use details about sterile conditions and procedures to achieve or maintain sterile integrity of materials or areas of the body (Tasks 153, 283, 521).
2. In participating in meeting of diagnostic x-ray department nursing staff, being able to comprehend, raise issues, or participate in any discussion dealing with asepsis as it affects patient care (Task 295).

To accomplish these activities the student must have a detailed knowledge of the subject category, covering the appropriate technical or special terms, facts, equipment, and/or procedures which are part of this discipline and are required for successful completion of the activities listed above.

Cross Reference Footnotes: See The Following Curriculum Objectives:
Lower scale value appears in: 265 266 267.
Same scale value appears in: 269 270 271.
Higher scale value appears in: 272 273 274.

CURRICULUM OBJECTIVE SHEET Page 1 of 1

Type of Objective Knowledge Factor IV No. 269
Skill or Knowledge Category 11738000 Scale Value 2.5
Occupation Patient Care Technician Level 2
Refers to Task Code No(s).: 33 522

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to demonstrate mastery of the following subject area

Asepsis (concepts and techniques involved in achievement of sterile condition; includes concurrent and terminal disinfection during surgery, aspects of sterilization of implements and equipment such as autoclaving)

at a level of awareness and depth of understanding adequate to the proper performance of the following activities:

1. In removing sutures or applying pressure dressing to puncture site, being able to apply information about asepsis in order to irrigate or swab area with antiseptic solution, maintain the sterile integrity of materials (Tasks 33, 522).

To accomplish these activities the student must have a detailed knowledge of the subject category, covering the appropriate technical or special terms, facts, equipment, and/or procedures which are part of this discipline and are required for successful completion of the activities listed above.

Cross Reference Footnotes: See The Following Curriculum Objectives:
Lower scale value appears in: 265 266 267.
Same scale value appears in: 268 270 271.
Higher scale value appears in: 272 273 274.

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Type of Objective Knowledge Factor VI No. 270
Skill or Knowledge Category 11738000 Scale Value 2.5
Occupation Quality Assurance Aide Level 1
Refers to Task Code No(s).: 79 80

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to demonstrate mastery of the following subject area

Asepsis (concepts and techniques involved in achievement of sterile condition; includes concurrent and terminal disinfection during surgery, aspects of sterilization of implements and equipment such as autoclaving)

at a level of awareness and depth of understanding adequate to the proper performance of the following activities:

1. Applying information about asepsis to determine when to use sterile technique in the preparation of barium sulfate contrast medium or prepare medications and materials for sterile procedure trays; being able to use details about sterile conditions and procedures to achieve or maintain aseptic conditions (Tasks 79, 80).

To accomplish these activities the student must have a detailed knowledge of the subject category, covering the appropriate technical or special terms, facts, equipment, and/or procedures which are part of this discipline and are required for successful completion of the activities listed above.

Cross Reference Footnotes: See The Following Curriculum Objectives:
Lower scale value appears in: 265 266 267.
Same scale value appears in: 268 269 271.
Higher scale value appears in: 272 273 274.

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Type of Objective Knowledge Factor III No. 271
Skill or Knowledge Category 11738000 Scale Value 2.5
Occupation Radiologic Technologist Level 3
Refers to Task Code No(s).: 355 356 357 358 359 360 361 362 363 364 365 366 367 368 369 374 381 382 383 384

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to demonstrate mastery of the following subject area

Asepsis (concepts and techniques involved in achievement of sterile condition; includes concurrent and terminal disinfection during surgery, aspects of sterilization of implements and equipment such as autoclaving)

at a level of awareness and depth of understanding adequate to the proper performance of the following activities:

1. In preparing patient or materials for radiography, being able to apply information about asepsis, after obtaining information about patient's condition, to decide whether to arrange for or carry out isolation or decontamination techniques, arrange for proper cleanup of patient and/or equipment after the examination, arrange to have dressings reinforced or reapplied, so as to keep patient, equipment, and area free of contamination (all tasks listed).

To accomplish these activities the student must have detailed knowledge of the subject category, covering the appropriate technical or special terms, facts, equipment, and/or procedures which are part of this discipline and are required for successful completion of the activities listed above.

Cross Reference Footnotes: See The Following Curriculum Objectives:
Lower scale value appears in: 265 266 267.
Same scale value appears in: 268 269 270.
Higher scale value appears in: 272 273 274.

CURRICULUM OBJECTIVE SHEET

Type of Objective Knowledge Factor IV No. 272

Skill or Knowledge Category 11738000 Scale Value 3.5

Occupation Patient Care Aide Level 1

Refers to Task Code No(s).: 166 490 520

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to demonstrate mastery of the following subject area

Asepsis (concepts and techniques involved in achievement of sterile condition; includes concurrent and terminal disinfection during surgery, aspects of sterilization of implements and equipment such as autoclaving)

at a level of awareness and depth of understanding adequate to the proper performance of the following activities:

1. Applying information about asepsis in isolation and decontamination techniques to prepare examination or treatment room or area and clean up afterwards, or in mummying or wrapping infant when the patient has an infectious or communicable condition (Tasks 166, 490).

2. In preparing a patient and attaching electrodes for ECG monitoring during a surgical procedure, being able to use details about sterile conditions and procedures to achieve or maintain the sterile integrity of materials, areas, and parts of the patient's body (Task 520).

To accomplish these activities the student must have a detailed knowledge of the subject category, covering the appropriate technical or special terms, facts, equipment, and/or procedures which are part of this discipline and are required for successful completion of the activities listed above.

Cross Reference Footnotes: See The Following Curriculum Objectives:
Lower scale value appears in: 265 266 267 268 269 270 271.
Same scale value appears in: 273 274.

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Type of Objective Knowledge Factor IV No. 273
Skill or Knowledge Category 11738000 Scale Value 3.5
Occupation Patient Care Technician Level 2
Refers to Task Code No(s).: 65 133 143 156 181 296 299 308

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to demonstrate mastery of the following subject area

Asepsis (concepts and techniques involved in achievement of sterile condition; includes concurrent and terminal disinfection during surgery, aspects of sterilization of implements and equipment such as autoclaving)

at a level of awareness and depth of understanding adequate to the proper performance of the following activities:

1. In preparing extravascular body fluids, washings, cell or tissue biopsies for the laboratory, administering subcutaneous or intramuscular injections, catheterizing a male or female urethra, cleansing and dressing wounds, or administering first aid, being able to use details about sterile and isolation or decontamination procedures to achieve or maintain the sterile integrity of materials, areas, or parts of the body (Tasks 65, 133, 143, 156, 181, 296, 299).

2. In setting up and monitoring a patient's ECG during a surgical procedure, being able to use details about sterile condition and procedures to achieve or maintain the sterile integrity of materials, areas, and parts of the patient's body (Task 308).

To accomplish these activities the student must have a detailed knowledge of the subject category, covering the appropriate technical or special terms, facts, equipment, and/or procedures which are part of this discipline and are required for successful completion of the activities listed above.

Cross Reference Footnotes: See The Following Curriculum Objectives:
Lower scale value appears in: 265 266 267 268 269 270 271.
Same scale value appears in: 272 274 and level 4.

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Type of Objective Knowledge Factor III No. 274
Skill or Knowledge Category 11738000 Scale Value 3.5
Occupation Radiologic Technologist Level 3
Refers to Task Code No(s).: 353 370 371 372 373 375 376 377 378 379 380 385 386 387 388 389 390 463 464 465 466 467 468 491 492 493 494 495 496 497 498 499 500 501 502 503 504 505 506 507 508 509 510 511 512 513 514 515 516 517 518 519 526
Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to demonstrate mastery of the following subject area

> Asepsis (concepts and techniques involved in achievement of sterile condition; includes concurrent and terminal disinfection during surgery, aspects of sterilization of implements and equipment such as autoclaving)

at a level of awareness and depth of understanding adequate to the proper performance of the following activities:

1. In participating in meeting of diagnostic x-ray department technologists, being able to comprehend, raise issues, or participate in any discussion dealing with asepsis as it affects patient care during radiographic examinations (Task 353).

2. In carrying out radiography in operating room or where sterile surgical or introductory procedures are involved, being able to use details about sterile conditions and procedures to achieve or maintain the sterile integrity of materials, areas, and parts of the patient's body (all tasks as appropriate except Task 353).

3. In preparing patient or materials for radiography involving surgical or introductory procedures, being able to apply information about asepsis to decide whether to arrange for or carry out isolation or decontamination techniques, arrange for proper cleanup of patient and/or equipment after the examination, arrange to have dressings reinforced or reapplied so as to keep patient, equipment, and area free of contamination (all tasks as appropriate except Task 353).

To accomplish these activities the student must have a detailed knowledge of the subject category, covering the appropriate technical or special terms, facts, equipment, and/or procedures which are part of this discipline and are required for successful completion of the activities listed above.

Cross Reference Footnotes: See The Following Curriculum Objectives:
Same scale value appears in: 265 266 267 268 269 270 271.
Higher scale value appears in: 272 273 and level 4.

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Type of Objective Knowledge Factor IV No. 275

Skill or Knowledge Category 12210000 Scale Value 1.5

Occupation Patient Care Aide Level 1

Refers to Task Code No(s).: 520

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to demonstrate mastery of the following subject area

Radiobiology (effects of high energy radiation on living organisms; includes effects of ionizing electromagnetic, ultraviolet, sonic, and particulate radiation, biological safety requirements and protection)

at a level of awareness and depth of understanding adequate to the proper performance of the following activities:

1. In preparing a patient for ECG monitoring in connection with a radiographic or fluoroscopic procedure, understanding the effects of ionizing (x-ray) radiation on human organisms sufficiently to conscientiously apply and conform to safety requirements for provision of appropriate shielding for the patient and self (Task 520).

To accomplish these activities the student must have a detailed knowledge of the subject category, covering the appropriate technical or special terms, facts, equipment, and/or procedures which are part of this discipline and are required for successful completion of the activities listed above.

Cross Reference Footnotes: See The Following Curriculum Objectives:

Same scale value appears in: 276 277.

Higher scale value appears in: 278 279 280 281 282.

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Type of Objective Knowledge Factor IV No. 276
Skill or Knowledge Category 12210000 Scale Value 1.5
Occupation Patient Care Technician Level 2
Refers to Task Code No(s).: 308

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to demonstrate mastery of the following subject area

Radiobiology (effects of high energy radiation on living organisms; includes effects of ionizing electromagnetic, ultraviolet, sonic, and particulate radiation, biological safety requirements and protection)

at a level of awareness and depth of understanding adequate to the proper performance of the following activities:

1. In setting up and monitoring a patient's ECG during a radiographic or fluoroscopic procedure, understanding the effects of ionizing (x-ray) radiation on human organisms sufficiently to conscientiously apply and conform to safety requirements for provision of appropriate shielding for patient and self (Task 308).

To accomplish these activities the student must have a detailed knowledge of the subject category, covering the appropriate technical or special terms, facts, equipment, and/or procedures which are part of this discipline and are required for successful completion of the activities listed above.

Cross Reference Footnotes: See The Following Curriculum Objectives:
Same scale value appears in: 275 277.
Higher scale value appears in: 278 279 280 281 282.

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Type of Objective Knowledge Factor VI No. 277
Skill or Knowledge Category 12210000 Scale Value 1.5
Occupation Quality Assurance Technician Level 2
Refers to Task Code No(s).: 173 175 178 187 523 524 525 536 538 553 554

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to demonstrate mastery of the following subject area

Radiobiology (effects of high energy radiation on living organisms; includes effects of ionizing electromagnetic, ultraviolet, sonic, and particulate radiation, biological safety requirements and protection)

at a level of awareness and depth of understanding adequate to the proper performance of the following activities:

1. In carrying out radiographic tests of x-ray equipment, or checking and preparing x-ray equipment and supplies, understanding the effects of ionizing (x-ray) radiation on human organisms sufficiently to conscientiously apply and conform to test and safety standards; checking to make sure no person will be exposed during tests (Tasks 173, 175, 178, 187, 523, 524, 525, 536, 538).

2. In reading and recording x-ray exposure from personnel monitoring film or TLD dosimeters, being able to use details about the effects of ionizing (x-ray) radiation on human tissues and safety requirements to conscientiously determine whether any readings appear unusually high, and decide when to bring this to the attention of the proper staff member (Task 553);

   being able to determine whether exposure is within acceptable limits for a period, incident, or lifetime equivalent based on standards; being able to decide which follow-up procedure is appropriate (Task 554).

To accomplish these activities the student must have a detailed knowledge of the subject category, covering the appropriate technical or special terms, facts, equipment, and/or procedures which are part of this discipline and are required for successful completion of the activities listed above.

Cross Reference Footnotes: See The Following Curriculum Objectives:
Same scale value appears in: 275 276.
Higher scale value appears in: 278 279 280 281 282.

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Type of Objective Knowledge Factor IV No. 278
Skill or Knowledge Category 12210000 Scale Value 2.5
Occupation Patient Care Technician Level 2
Refers to Task Code No(s).: 280

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to demonstrate mastery of the following subject area

Radiobiology (effects of high energy radiation on living organisms; includes effects of ionizing electromagnetic, ultraviolet, sonic, and particulate radiation, biological safety requirements and protection)

at a level of awareness and depth of understanding adequate to the proper performance of the following activities:

1. In participating in monitoring of personal exposure to ionizing radiation, understanding the effects of all ionizing radiation on human tissues sufficiently to conscientiously conform to safety requirements such as wearing gonadal shielding or, during exposures, being behind protective barriers; being able to use details about the effects of exposure on human tissues to conscientiously note when accidental or excessive personal exposure may have occurred (Task 280).

To accomplish these activities the student must have a detailed knowledge of the subject category, covering the appropriate technical or special terms, facts, equipment, and/or procedures which are part of this discipline and are required for successful completion of the activities listed above.

Cross Reference Footnotes: See The Following Curriculum Objectives:
Lower scale value appears in: 275 276 277.
Same scale value appears in: 279 280.
Higher scale value appears in: 281 282.

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Type of Objective Knowledge Factor VI No. 279
Skill or Knowledge Category 12210000 Scale Value 2.5
Occupation Quality Assurance Technician Level 2
Refers to Task Code No(s).: 280 529 530 531 532 533 534 535 537 539 540 543
544 548 549 550 556

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to demonstrate mastery of the following subject area

Radiobiology (effects of high energy radiation on living organisms; includes effects of ionizing electromagnetic, ultraviolet, sonic, and particulate radiation, biological safety requirements and protection)

at a level of awareness and depth of understanding adequate to the proper performance of the following activities:

1. In participating in monitoring of personal exposure to ionizing radiation, understanding the effects of all ionizing radiation on human tissues sufficiently to conscientiously conform to safety requirements such as wearing gonadal shielding or making exposures behind protective barriers; being able to use details about the effects of exposure on human tissues to conscientiously note when accidental or excessive personal exposure may have occurred (Task 280).

2. In testing x-ray equipment, film processors and x-ray films for conformance to radiation protection standards, conducting radiation protection survey, or calibrating test instruments, understanding the effects of ionizing (x-ray) radiation on human organisms sufficiently to conscientiously apply tests and evaluate conformity with safety requirements; being able to use details about the effects of ionizing (x-ray) radiation on human tissues to discuss results of tests, such as effect of problems and deviations from acceptable standards on patient exposure (each of the tasks listed except Task 280).

To accomplish these activities the student must have a detailed knowledge of the subject category, covering the appropriate technical or special terms, facts, equipment, and/or procedures which are part of this discipline and are required for successful completion of the activities listed above.

Cross Reference Footnotes: See The Following Curriculum Objectives:
Lower scale value appears in: 275 276 277.
Same scale value appears in: 278 280.
Higher scale value appears in: 281 282.

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Type of Objective Knowledge Factor III No. 280

Skill or Knowledge Category 12210000 Scale Value 2.5

Occupation Radiologic Technologist Level 3

Refers to Task Code No(s).: 280 369

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to demonstrate mastery of the following subject area

Radiobiology (effects of high energy radiation on living organisms; includes effects of ionizing electromagnetic, ultraviolet, sonic, and particulate radiation, biological safety requirements and protection)

at a level of awareness and depth of understanding adequate to the proper performance of the following activities:

1. In participating in monitoring of personal exposure to ionizing radiation, understanding the effects of all ionizing radiation on human tissues sufficiently to conscientiously conform to safety requirements such as wearing gonadal shielding or making exposures behind protective barriers; being able to use details about the effects of exposure on human tissues to conscientiously note when accidental or excessive personal exposure may have occurred (Task 280).

2. In preparing mobile equipment for bedside radiography, being able to understand the effects of ionizing radiation on human tissues sufficiently to conscientiously select appropriate shielding to be used to protect patient based on sex, positions for examination, and area of interest, to provide for shielding of self and others who will remain in the room during exposure, and to make sure that person making exposure will be able to stand the minimal required distance from the x-ray beam or outside the room behind protective barrier during exposure (Task 369).

To accomplish these activities the student must have a detailed knowledge of the subject category, covering the appropriate technical or special terms, facts, equipment, and/or procedures which are part of this discipline and are required for successful completion of the activities listed above.

Cross Reference Footnotes: See The Following Curriculum Objectives:

Lower scale value appears in: 275 276 277.

Same scale value appears in: 278 279.

Higher scale value appears in: 281 282.

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Type of Objective Knowledge Factor VI No. 281
Skill or Knowledge Category 12210000 Scale Value 3.5
Occupation Quality Assurance Technician Level 2
Refers to Task Code No.(s).: 545

Is there Cross Reference? ...Yes(X)...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to demonstrate mastery of the following subject area

Radiobiology (effects of high energy radiation on living organisms; includes effects of ionizing electromagnetic, ultraviolet, sonic, and particulate radiation, biological safety requirements and protection)

at a level of awareness and depth of understanding adequate to the proper performance of the following activities:

1. In monitoring patient exposure rates for routine diagnostic procedures, being able to use understanding of the effects of ionizing radiation on human organs and tissues, and use details about safety requirements to conscientiously carry out the monitoring tests and consider the tissues and organs involved in the various radiographic or fluoroscopic examinations;

   being able to determine whether procedures being tested meet acceptable exposure standards for the area of the body involved;

   being able to recommend gonadal shielding appropriate for particular examinations and positions, consider the effect of collimation, and discuss and explain the effects of any problem or deviations from acceptable standards on patient exposure and safety (Task 545).

To accomplish these activities the student must have a detailed knowledge of the subject category, covering the appropriate technical or special terms, facts, equipment, and/or procedures which are part of this discipline and are required for successful completion of the activities listed above.

Cross Reference Footnotes: See The Following Curriculum Objectives:
Lower scale value appears in: 275 276 277 278 279 280.
Same scale value appears in: 282.
Higher scale value appears in level 5.

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Type of Objective Knowledge Factor III No. 282
Skill or Knowledge Category 12210000 Scale Value 3.5
Occupation Radiologic Technologist Level 3
Refers to Task Code No(s).: 81 353 355 356 357 358 359 360 361 362 363 364 365 366 367 368 370 371 372 373 374 375 376 377 378 379 380 381 382 383 384 385 386 387 388 389 390 463 464 465 466 467 468 491 492 493 494 (*continued below)
Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to demonstrate mastery of the following subject area

Radiobiology (effects of high energy radiation on living organisms; includes effects of ionizing electromagnetic, ultraviolet, sonic, and particulate radiation, biological safety requirements and protection)

at a level of awareness and depth of understanding adequate to the proper performance of the following activities:

1. In providing technical quality review of "plain film" radiographs, being able to use understanding of the effects of ionizing radiation on human organs and tissues and use details of biological safety requirements and protection procedures to conscientiously review whether a needlessly large area of patient's body has been exposed, whether there is visual evidence of proper field size collimation, and appropriate shielding; in ordering "retakes," restricting orders to those only for medical reasons, such as for missing areas or views or those needed to complete diagnostic information; being able to explain to technologist reasons for decision (Task 81).

2. In participating in meeting of diagnostic x-ray department technologists, being able to comprehend, raise issues, or participate in any discussion dealing with radiobiology as it relates to patient and staff safety in connection with radiographic examinations (Task 353).

3. In taking radiographs or participating in radiographic or fluoroscopic examinations, being able to use understanding of the effects of ionizing radiation on human organs, tissues, and genes, and use details of biological safety requirements and protection procedures to conscientiously select appropriate shielding for patient based on area of interest, patient's age, sex, and views ordered, especially gonadal shielding;

   being able to apply shielding to radiosensitive tissues that will be in the primary path of the beam but not part of area of interest;

   being able to check that exposure factors are for minimum exposure needed to obtain diagnostic information;

   being able to check records and/or interview female patient about possible pregnancy to be sure that there is no danger of exposing a fetus, to check that examination is not a duplication of one taken in the recent past, or bring to attention of radiologist an unusually high history of radiation exposure;

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Type of Objective Knowledge Factor III No. 282

Skill or Knowledge Cagegory 12210000 Radiobiology Scale Value 3.5

Content Continued

being able to provide protection by giving everyone who will remain in room during exposure protective shielding; explaining purpose of shielding, taking precaution to protect and shield against accidental exposure to radiation such as with horizontally directed x-ray tube or unusual tube travel or angulation;

being able to minimize exposure by collimating to the area of interest; making sure that any requests for retakes are for medical reasons; being careful to carry out procedures so as to avoid need for retakes;

being able,with fluoroscopy,to check fluoroscopic equipment before procedure, make sure that no one is in examination room except patient, or make sure that staff is shielded before making exposure; providing shielding for radiologist such as screen, leaded gloves, and apron; informing radiologist of cumulative exposure periodically during fluoroscopy;

being able to record patient's examination including number of retakes and any information on radiation dosage when information is available (all tasks listed except Tasks 81 and 353 as appropriate).

To accomplish these activities the student must have a detailed knowledge of the subject category, covering the appropriate technical or special terms, facts, equipment, and/or procedures which are part of this discipline and are required for successful completion of the activities listed above.

Cross Reference Footnotes: See The Following Curriculum Objectives:
Lower scale value appears in: 275 276 277 278 279 280.
Same scale value appears in: 281.
Higher scale value appears in level 5.

* 495 496 497 498 499 500 501 502 503 504 505 506 507 508 509 510 511 512 513 514 515 516 517 518 519 526.

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Type of Objective Knowledge Factor VI No. 283
Skill or Knowledge Category 12223000 Scale Value 1.5
Occupation Quality Assurance Aide Level 1
Refers to Task Code No(s).: 8 275

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to demonstrate mastery of the following subject area

> Diagnostic Radiography (application of electromagnetic ionizing radiation such as x-rays to achieve interpretable images for diagnostic purposes; also includes fluoroscopy, use of related techniques, contrast media, procedures, positioning, interpretation of images)

at a level of awareness and depth of understanding adequate to the proper performance of the following activities:

1. Using details of diagnostic radiography in operating controls to turn off x-ray control unit and high voltage when shutting down computerized transverse axial tomography equipment (Task 8).
2. In preparing first and second order subtraction prints, using details of diagnostic radiography to deal with radiographic images on processed radiographs and utilize specialized equipment (Task 275).

To accomplish these activities the student must have a detailed knowledge of the subject category, covering the appropriate technical or special terms, facts, equipment, and/or procedures which are part of this discipline and are required for successful completion of the activities listed above.

Cross Reference Footnotes: See The Following Curriculum Objectives:
Same scale value appears in: 284.
Higher scale value appears in: 285 286 287 288 289 290 291 292 293 294.

CURRICULUM OBJECTIVE SHEET Page 1 of 1

Type of Objective Knowledge Factor VI No. 284

Skill or Knowledge Category 12223000 Scale Value 1.5

Occupation Quality Assurance Technician Level 2

Refers to Task Code No(s).: 523 524

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to demonstrate mastery of the following subject area

Diagnostic Radiography (application of electromagnetic ionizing radiation such as x-rays to achieve interpretable images for diagnostic purposes; also includes fluoroscopy, use of related techniques, contrast media, procedures, positioning, interpretation of images)

at a level of awareness and depth of understanding adequate to the proper performance of the following activities:

1. Using details of diagnostic radiography to carry out warm-up procedures for computerized transverse axial tomography equipment, and set mA and kV as appropriate (Task 523), or to check that x-ray unit is off before carrying out preventive maintenance and cleaning or equipment (Task 524).

To accomplish these activities the student must have a detailed knowledge of the subject category, covering the appropriate technical or special terms, facts, equipment, and/or procedures which are part of this discipline and are required for successful completion of the activities listed above.

Cross Reference Footnotes: See The Following Curriculum Objectives:

Same scale value appears in: 283.

Higher scale value appears in: 285 286 287 288 289 290 291 292 293 294.

CURRICULUM OBJECTIVE SHEET Page 1 of 1

Type of Objective Knowledge Factor IV No. 285

Skill or Knowledge Category 12223000 Scale Value 2.5

Occupation Patient Care Aide Level 1

Refers to Task Code No(s).: 73 74

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to demonstrate mastery of the following subject area

Diagnostic Radiography (application of electromagnetic ionizing radiation such as x-rays to achieve interpretable images for diagnostic purposes; also includes fluoroscopy, use of related techniques, contrast media, procedures, positioning, interpretation of images)

at a level of awareness and depth of understanding adequate to the proper performance of the following activities:

1. Using details of diagnostic radiography and general awareness of diagnostic procedures and equipment in order to reassure patient or accompanying family member about the procedures, explain what will happen, explain the equipment or the nature of the examination (Tasks 73, 74).

To accomplish these activities the student must have a detailed knowledge of the subject category, covering the appropriate technical or special terms, facts, equipment, and/or procedures which are part of this discipline and are required for successful completion of the activities listed above.

Cross Reference Footnotes: See The Following Curriculum Objectives:
Lower scale value appears in: 283 284.
Same scale value appears in: 286 287 288 289.
Higher scale value appears in: 290 291 292 293 294.

CURRICULUM OBJECTIVE SHEET Page 1 of 1

Type of Objective Knowledge Factor IV No. 286
Skill or Knowledge Category 12223000 Scale Value 2.5
Occupation Patient Care Technician Level 2
Refers to Task Code No(s) : 65

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to demonstrate mastery of the following subject area

Diagnostic Radiography (application of electromagnetic ionizing radiation such as x-rays to achieve interpretable images for diagnostic purposes; also includes fluoroscopy, use of related techniques, contrast media, procedures, positioning, interpretation of images)

at a level of awareness and depth of understanding adequate to the proper performance of the following activities:

1. Using details of diagnostic radiography procedures in order to determine from an x-ray requisition sheet the specimens to be taken during procedure that will require preparation for the laboratory (Task 65).

To accomplish these activities the student must have a detailed knowledge of the subject category, covering the appropriate technical or special terms, facts, equipment, and/or procedures which are part of this discipline and are required for successful completion of the activities listed above.

Cross Reference Footnotes: See The Following Curriculum Objectives:
Lower scale value appears in: 283 284.
Same scale value appears in: 285 287 288 289.
Higher scale value appears in: 290 291 292 293 294.

CURRICULUM OBJECTIVE SHEET

Page 1 of 1

Type of Objective Knowledge Factor VI No. 287
Skill or Knowledge Category 12223000 Scale Value 2.5
Occupation Quality Assurance Aide Level 1
Refers to Task Code No(s).: 147

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to demonstrate mastery of the following subject area

Diagnostic Radiography (application of electromagnetic ionizing radiation such as x-rays to achieve interpretable images for diagnostic purposes; also includes fluoroscopy, use of related techniques, contrast media, procedures, positioning, interpretation of images)

at a level of awareness and depth of understanding adequate to the proper performance of the following activities:

1. Using details of diagnostic radiography in order to prepare or change technique charts for specific x-ray and/or fluoroscopic equipment as ordered; indicating the needed conversion of technical factors to compensate for deteriorating output on a chart which accounts for thickness of part, grid ratio, focal-film distance, focal spot size, type and speed of film, use of image intensifying screen; being able to check new factors on tube rating chart (Task 147).

To accomplish these activities the student must have a detailed knowledge of the subject category, covering the appropriate technical or special terms, facts, equipment, and/or procedures which are part of this discipline and are required for successful completion of the activities listed above.

Cross Reference Footnotes: See The Following Curriculum Objectives:
Lower scale value appears in: 283 284.
Same scale value appears in: 285 286 288 289.
Higher scale value appears in: 290 291 292 293 294.

CURRICULUM OBJECTIVE SHEET Page 1 of 2

Type of Objective Knowledge Factor VI No. 288

Skill or Knowledge Category 12223000 Scale Value 2.5

Occupation Quality Assurance Technician Level 2

Refers to Task Code No(s).: 78 178 187 525 527 536

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to demonstrate mastery of the following subject area

Diagnostic Radiography (application of electromagnetic ionizing radiation such as x-rays to achieve interpretable images for diagnostic purposes; also includes fluoroscopy, use of related techniques, contrast media, procedures, positioning, interpretation of images)

at a level of awareness and depth of understanding adequate to the proper performance of the following activities:

1. Using details of diagnostic radiography to deal with radiographic images so as to match processed radiographs with requisition sheets and obtain missing information (Task 78).

2. Using details of diagnostic radiography to check and prepare fluoroscopic controls; being able to check and adjust line voltage, tube height or focal-film distance; being able to set kVp, mA and/or density controls, use, check,or adjust automatic or conventional timer, collimator, TV monitor controls, remote controls, brightness controls; being able to check functioning of roll film or cassette spot film device; being able to judge whether equipment is functioning properly (Task 178).

3. Using details of diagnostic radiography to check cassettes for proper film-screen contact; being able to use x-ray machine, x-ray film, cassettes, test materials, select focal-film distance, set collimation, technical factors, exposure control, and use tube rating chart; being able to judge proper film-screen contact (Task 187).

4. Using details of diagnostic radiography to check calibration and accuracy of computerized transverse axial tomography equipment and retrieve, display, and copy scans; being able to check line voltage, use various components, select mA and kVp; being able to use concept of density to adjust and/or evaluate scan display (Tasks 525, 527).

5. Using details of diagnostic radiography to visually and/or manually inspect a diagnostic radiography system; being able to check movable parts, position locks, beam limiting devices, illuminators, beam angle and position indicators; being able to recognize various types of equipment and operate each as appropriate for check (Task 536).

CURRICULUM OBJECTIVE SHEET (continued) Page 2 of 2

Type of Objective	Knowledge	Factor	VI	No.	288
Skill or Knowledge Cagegory	12223000 Diagnostic Radiography	Scale Value	2.5		

Content Continued

To accomplish these activities the student must have a detailed knowledge of the subject category, covering the appropriate technical or special terms, facts, equipment, and/or procedures which are part of this discipline and are required for successful completion of the activities listed above.

Cross Reference Footnotes: See The Following Curriculum Objectives:
Lower scale value appears in: 283 284.
Same scale value appears in: 285 286 287 289.
Higher scale value appears in: 290 291 292 293 294.

CURRICULUM OBJECTIVE SHEET Page 1 of 1

Type of Objective Knowledge Factor III No. 289

Skill or Knowledge Category 12223000 Scale Value 2.5

Occupation Radiologic Technologist Level 3

Refers to Task Code No(s).: 369

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to demonstrate mastery of the following subject area

Diagnostic Radiography (application of electromagnetic ionizing radiation such as x-rays to achieve interpretable images for diagnostic purposes; also includes fluoroscopy, use of related techniques, contrast media, procedures, positioning, interpretation of images)

at a level of awareness and depth of understanding adequate to the proper performance of the following activities:

1. Using details of diagnostic radiography to prepare, set up, and return mobile portable radiography equipment used for bedside radiography;

   being able to select proper equipment based on examination ordered, the exposure technique required, and proper focal spot size for magnification;

   being able to clean and assemble equipment, select immobilization devices, cassettes and cassette tunnels, localizer devices, cassette stands, and shielding;

   being able to select size, speed, and type of x-ray film, grid, and cassette combinations, prepare identification markers;

   being able to select and set technical factors and check equipment functioning, set distances from target to patient(TOD) and target to film(TFD);

   being able to set up equipment safely in designated location (Task 369).

To accomplish these activities the student must have a detailed knowledge of the subject category, covering the appropriate technical or special terms, facts, equipment, and/or procedures which are part of this discipline and are required for successful completion of the activities listed above.

Cross Reference Footnotes: See The Following Curriculum Objectives:
Lower scale value appears in: 283 284.
Same scale value appears in: 285 286 287 288.
Higher scale value appears in: 290 291 292 293 294.

CURRICULUM OBJECTIVE SHEET Page 1 of 3

Type of Objective Knowledge Factor VI No. 290

Skill or Knowledge Category 12223000 Scale Value 3.5

Occupation Quality Assurance Technician Level 2

Refers to Task Code No(s).: 173 175 529 530 531 532 533 534 535 537 538 539 540 543 544 548 549 550 553 556

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to demonstrate mastery of the following subject area

Diagnostic Radiography (application of electromagnetic ionizing radiation such as x-rays to achieve interpretable images for diagnostic purposes; also includes fluoroscopy, use of related techniques, contrast media, procedures, positioning, interpretation of images)

at a level of awareness and depth of understanding adequate to the proper performance of the following activities:

1. Using an understanding of diagnostic radiography and appropriate details about diagnostic x-ray equipment, technical factors, controls, test materials, collimators, and the interpretation of radiographic images to carry out tests of x-ray equipment by setting x-ray tube at appropriate test heights, using light system, collimators, setting technical factors, preparing test films, using test objects, making test exposures, interpreting test images (Task 73, 175, 529, 530, 531, 533, 535, 537, 539, 540, 543, 544).

2. Using an understanding of diagnostic radiography and appropriate details about a variety of diagnostic x-ray equipment, film processors, x-ray film, and special test equipment (such as test top, penetrometer, beam attenuators, test bar or star patterns, pin hole diaphragm, pulse counter, chronometer, oscilloscope, radiation detection device, phantoms, survey meter, kVp, mA, mAs measuring instruments, graph paper, penetrometer test cassettes, ionization chamber, electrometer, filters, sensitometer, radioactive source, TLD packets) to carry out tests of x-ray equipment such as:

   accuracy check of x-ray machine timers using spinning top test (Task 173);

   penetrometer test of kVp or mA calibration (Task 175);

   check of x-ray field limitation, x-ray receptor and light field alignment, minimum TOD, TFD, and field size-indicators (Task 529);

   check of fluoroscopic and spot film x-ray field limitation, x-ray field and image receptor alignment, maximum TID, minimum TOD (Task 530);

   check of x-ray tube overload protection and effective focal spot size (Task 531);

Type of Objective Knowledge Factor VI No. 290

Skill or Knowledge Cagegory 12223000 Diagnostic Radiography Scale Value 3.5

Content Continued

direct calibration tests of exposure timers (Task 532);

check of automatic exposure termination device (Task 533);

visual, radiographic, or fluoroscopic inspection of personnel shielding devices (Task 534);

direct measurement or radiographic check of kVp, mA, mAs calibration, exposure rates, reproducibility (Task 535);

check of operation of tomography equipment, fulcrum position, resolution, exposure uniformity, grid alignment (Task 537);

check of the total filtration of the primary beam (HVL) (Task 538);

check of bucky-grid alignment and centering (Task 539);

check of fluoroscopic automatic brightness control system; the focus, resolution and distortion of the optical system including cine, spot film, and video devices (Task 540);

check of film processors (Task 543);

determination of exposure characteristics of x-ray and dosimetric films (Task 544);

check of fluoroscopic equipment maximum entrance exposure rate, primary barrier transmitted radiation rate (Task 548);

check of leakage radiation rate from source assembly (Task 549);

survey of stray radiation within diagnostic x-ray installation and transmission across primary and secondary protective barriers (Task 550).

3. Being able to use an understanding of diagnostic radiography and appropriate details about equipment functions and test standards to interpret test results by comparing with test standards: being able to select appropriate course of action such as request repair, shut down equipment (Tasks 173, 175, 529, 530, 531, 532, 533, 534, 535, 537, 538, 539, 540, 543, 544, 548, 549, 550).

4. Using an understanding of diagnostic radiography and appropriate details about exposure and calibration of radiation detection to make calibration exposures of dosimetric film or thermoluminescent dosimeters using densitometer or TL reader, carry out procedures to read and record exposure from radiation detection badge inserts (Task 553).

Type of Objective Knowledge Factor VI No. 290

Skill or Knowledge Cagegory 12223000 Diagnostic Radiography Scale Value 3.5

Content Continued

5. Using details about diagnostic radiography and test procedures to carry out calibration of exposure detection instruments such as ionization chamber integrating radiation meter, radiation rate meter, survey meter (Task 556).

To accomplish these activities the student must have a detailed knowledge of the subject category, covering the appropriate technical or special terms, facts, equipment, and/or procedures which are part of this discipline and are required for successful completion of the activities listed above.

Cross Reference Footnotes: See The Following Curriculum Objectives:

Lower scale value appears in: 283 284 285 286 287 288 289.

Same scale value appears in: 291.

Higher scale value appears in: 292 293 294.

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Type of Objective Knowledge Factor III No. 291
Skill or Knowledge Category 12223000 Scale Value 3.5
Occupation Radiologic Technologist Level 3
Refers to Task Code No(s).: 372 373 464

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to demonstrate mastery of the following subject area

Diagnostic Radiography (application of electromagnetic ionizing radiation such as x-rays to achieve interpretable images for diagnostic purposes; also includes fluoroscopy, use of related techniques, contrast media, procedures, positioning, interpretation of images)

at a level of awareness and depth of understanding adequate to the proper performance of the following activities:

1. Using an understanding of diagnostic radiography and appropriate details about diagnostic x-ray equipment, technical factors, controls, collimators, light systems, focal-film and focal-patient distances, tube angulation, centering, and patient positioning to achieve desired views in taking intravisceral or isolated operating room radiographs or operating room radiographs for opaque foreign body search;

   being able to select and prepare film for use in holder, prepare and use identification and right-left markers, set up mobile equipment, position and angle x-ray tube, adjust focal film distance, adjust collimation to area of interest, select and set technical factors, make exposure, monitor equipment during exposure, readjust technical factors or positioning based on physician's orders (Tasks 372, 373).

2. Using an understanding of diagnostic radiography and appropriate details about fluoroscopic equipment, spot filming and use of contrast media to provide technical assistance for fluoroscopic examination of patients and spot filming; being able to prepare spot film equipment for use (cassette or roll film), select cassettes, use right and left markers, position image intensifier, select exposure factors, check equipment functioning, check remote control and TV monitor, adjust focal-image intensifier distance, check focal-table distance, collimate, operate tilt table and fluoroscopic controls as ordered, load and unload cassettes in bucky (Task 464).

To accomplish these activities the student must have a detailed knowledge of the subject category, covering the appropriate technical or special terms, facts, equipment, and/or procedures which are part of this discipline and are required for successful completion of the activities listed above.

Cross Reference Footnotes: See The Following Curriculum Objectives:
Lower scale value appears in: 283 284 285 286 287 288 289.
Same scale value appears in: 290.
Lower scale value appears in: 292 293 294.

CURRICULUM OBJECTIVE SHEET Page 1 of 1

Type of Objective Knowledge Factor VI No. 292
Skill or Knowledge Category 12223000 Scale Value 5.5
Occupation Quality Assurance Technician Level 2
Refers to Task Code No(s).: 545

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to demonstrate mastery of the following subject area

Diagnostic Radiography (application of electromagnetic ionizing radiation such as x-rays to achieve interpretable images for diagnostic purposes; also includes fluoroscopy, use of related techniques, contrast media, procedures, positioning, interpretation of images)

at a level of awareness and depth of understanding adequate to the proper performance of the following activities:

1. Applying an understanding of diagnostic radiography and using appropriate details to monitor patient exposure rates for routine diagnostic procedures;

   being able to take account of the type of diagnostic x-ray unit, the specific patient positions and views ordered, the mode (such as radiographic, fluoroscopic, with serial film changer, spot filming, tomography, cine, computerized transverse axial tomography);

   being able to account for use of image intensifiers, automatic brightness controls, use of grid, bucky, image intensifying screens, size, type, and speed of x-ray film, effect of collimation, target to film distance, target to skin distance, target to image distances;accounting for standard technical factors, patient thickness, and standard distances;

   being able to follow test procedures as appropriate, use a phantom and exposure detection device, set equipment to simulate examination, operate equipment, and determine whether the procedures being tested meet acceptable exposure standards;

   being able to consider means of dose reduction, determine whether there is a problem with equipment (Task 545).

To accomplish these activities the student must have a detailed knowledge of the subject category, covering the appropriate technical or special terms, facts, equipment, and/or procedures which are part of this discipline and are required for successful completion of the activities listed above.

Cross Reference Footnotes: See The Following Curriculum Objectives:
Lower scale value appears in: 283 284 285 286 287 288 289 290 291.
Same scale value appears in: 293.
Higher scale value appears in: 294 and level 5.

CURRICULUM OBJECTIVE SHEET Page 1 of 3

Type of Objective Knowledge Factor III No. 293

Skill or Knowledge Category 12223000 Diagnostic Radiography Scale Value 5.5

Occupation Radiologic Technologist Level 3

Refers to Task Code No(s).: 355 356 357 358 359 360 361 362 363 364 365 366 367 368 370 371 374 375 376 377 378 379 380 381 382 383 384 385 386 387 388 389 390 463 465 466 467 468 491 492 493 494 495 496 497 498 499 500 (*continued below)

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to demonstrate mastery of the following area

Diagnostic Radiography (application of electromagnetic ionizing radiation such as x-rays to achieve interpretable images for diagnostic purposes; also includes fluoroscopy, use of related techniques. contrast media, procedures, positioning, interpretation of images)

at a level of awareness and depth of understanding adequate to the proper performance of the following activites:

1. Applying an understanding of diagnostic radiography to determine the type of radiographic image required for the examination listed on x-ray requisition sheet;

   being able to make radiographs by applying appropriate details about the operation of diagnostic x-ray equipment to use units such as overhead x-ray tube, stereoscopic x-ray machine, xeroradiography machine and accessories (Task 368), automatic serial film changers, biplane units, tomography machines, rotating neuroradiology units (such as PEG chairs), computerized transverse axial tomography equipment and components; being able to check, set up, or assist with units such as fluoroscope machines, cineradiography devices, videotape, spot film devices, remote control and TV monitoring devices (tasks as appropriate).

2. Applying an understanding of diagnostic radiography to obtain the requested views of the area of interest and condition being investigated by means of correct focus-object-film alignment; being able to position patient, center, rotate and align area of interest; being able to adjust height and center x-ray film in holders or cassettes on table, in bucky, in cassette tunnel, in vertical holder; being able to adjust height, angle, and center x-ray tube using distance and angle indicators, light system, collimators;

   being able to select alternative positions for the same view to accomodate special problems with patient's mobility;

   being able to prepare and use identification, R-L and series markers, set up for multiple views on one film;

   being able to immobilize patient to prevent motion, instruct patient in proper breath control, or time exposure to proper phase of respiration;

CURRICULUM OBJECTIVE SHEET (continued) Page 2 of 3

Type of Objective Knowledge Factor III No. 293

Skill or Knowledge Cagegory 12223000 Diagnostic Radiography Scale Value 5.5

Content Continued

being able to collimate to area of interest using light system, apply shielding, make exposure,and monitor equipment to detect any equipment problem;

being able to use auxiliary extension cone to reduce the primary beam;

being able to select size of film, cassette,or film holder, type and speed of film as appropriate for the examination;

being able to use triangles, protractors, angles, rulers to measure or obtain correct angulation, rotation, use calipers to measure thickness of the body part;

being able to use special localizer devices, cassette tunnels;

being able to make stereoscopic radiographs by proper shifts of tube angulation and centering;

being able to use occlusal or periapical film;

being able to make right-angle projections using biplane equipment or two units;

being able to use pelvimeter equipment (Task 468);

being able to use special equipment and techniques to immobilize infants;

being able to position patient in traction (tasks as appropriate).

3. Applying an understanding of diagnostic radiography to select technical exposure factors for radiographic examinations or fluoroscopy using technique and tube rating charts;

being able to take account of thickness of the body part, whether fatty or muscular, patient's age, collimated field size, use of accessories such as grid, bucky, intensifying screens, the type and speed of film, focal-film distance, presence of pathological condition, cast, preference of radiologist, posted changes in output, or conversions needed for use of magnification technique; being able to apply conversion factors; being able to check exposure factors against posted limits of x-ray tube;

being able to convert technique to equivalent output using higher kVp and lower mAs or as appropriate;

being able to carry out magnification technique and check for correct focal spot size;

being able to add additional filtration to the primary beam when appropriate by inserting or dialing additional filter;

CURRICULUM OBJECTIVE SHEET (continued) Page 3 of 3

Type of Objective Knowledge Factor III No. 293
Skill or Knowledge Cagegory 1222300 Diagnostic Radiography Scale Value 5.5

Content Continued

being able to modify technical factors or positioning to take account of request for retakes or additional views (tasks as appropriate).

4. Applying an understanding of diagnostic radiography contrast media to administer contrast orally for radiographs of heart, anterior portion of neck, upper gastrointestinal tract, or to check condition of contrast media for chemical deterioration;

   being able to coordinate with injection or instillation of contrast medium by radiologist and time exposures as appropriate, operate tilt table or fluoroscopic controls as ordered;

   being able to set up or check automatic pressure injector used to inject contrast medium;

   being able to use computer-operated control panel and keypunch cards for angiography (tasks as appropriate).

5. Being able to use tomographic attachment or special tomography equipment for linear, circular, elliptical, or hypocycloidal tomography, zonography, plesiotomography (Tasks 374, 385, 505, 508); in tomographic examination, being able to carry out steps to localize the plane of interest if so ordered (Task 374);

6. Being able to operate rotating PEG chairs or similar equipment for pneumoencephalography, brain ventriculography (Task 505);

7. Being able to use computerized transverse axial tomography equipment to obtain correct scan levels and angles and use viewing controls to obtain best density, contrast, color, or other characteristics to provide diagnostic information (Task 526).

To accomplish these activities the student must have a detailed knowledge of the subject category, covering the appropriate technical or special terms, facts, equipment, and/or procedures which are part of this discipline and are required for successful completion of the activities listed above.

Cross Reference Footnotes: See The Following Curriculum Objectives:
Lower scale value appears in: 283 284 285 286 287 288 289 290 291.
Same scale value appears in: 292.
Higher scale value appears in: 294.

* 501 502 503 504 505 506 507 508 509 510 511 512 513 514 515 516 517 518 519 526.

CURRICULUM OBJECTIVE SHEET Page 1 of 2

Type of Objective Knowledge Factor III No. 294

Skill or Knowledge Category 12223000 Scale Value 7.0

Occupation Radiologic Technologist Level 3

Refers to Task Code No(s).: 81 353

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to demonstrate mastery of the following subject area

Diagnostic Radiography (application of electromagnetic ionizing radiation such as x-rays to achieve interpretable images for diagnostic purposes; also includes fluoroscopy, use of related techniques, contrast media, procedures, positioning, interpretation of images)

at a level of awareness and depth of understanding adequate to the proper performance of the following activities:

1. In providing technical quality review of "plain film" radiographs, applying an understanding of diagnostic radiography to determine the type of radiographic images required for the examination listed on x-ray requisition sheet and evaluate whether standards for diagnostic quality have been met; being able to evaluate whether any views are omitted, or suggest alternative patient or x-ray tube positioning to obtain views for which conventional positioning is contraindicated;

   being able to determine whether correct view and full area of interest is demonstrated, whether needlessly large area has been exposed, whether there is adequate detail, definition, whether there is blurring, distortion, whether density and contrast are acceptable, whether there are artifacts, whether proper shielding has been used (Task 81).

2. Applying an understanding of diagnostic radiography in technical quality review of "plain films" to assess what factors may have contributed to unacceptable radiographs and take appropriate action; being able to evaluate whether improper positioning, centering, immobilization of patient, inappropriate technical factors, failure to adjust to special circumstances, improper part-film distance, focal-film distance, or problems with x-ray machine or film processor are responsible; being able to explain what is wrong or way to remedy to appropriate staff person (Task 81).

3. In participating in meeting of diagnostic x-ray department technologists, being able to comprehend, raise issues, or participate in any discussion dealing with diagnostic radiography equipment or examinations (Task 353).

CURRICULUM OBJECTIVE SHEET (continued) Page 2 of 2

Type of Objective Knowledge Factor III No. 294

Skill or Knowledge Cagegory 12223000 Diagnostic Radiography Scale Value 7.0

Content Continued

To acomplish these activities the student must have a detailed knowledge of the subject category, covering the appropriate technical or special terms, facts, equipment, and/or procedures which are part of this discipline and are required for successful completion of the activities listed above.

Cross Reference Footnotes: See The Following Curriculum Objectives:
Lower scale value appears in: 283 284 285 286 287 288 289 290 291 292 293.
Same scale value appears in levels 4 and 5.

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Type of Objective Knowledge Factor IV No. 295
Skill or Knowledge Category 12300000 Scale Value 1.5
Occupation Patient Care Technician Level 2
Refers to Task Code No(s).: 133 198 298 299

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to demonstrate mastery of the following subject area

Pharmacology (the study of drugs, i.e., chemical compounds or non-infectious biological substances which may be administered as an aid in the diagnosis, treatment or prevention of disease, for the relief of pain or suffering, or to control or improve any physiological or pathological condition)

at a level of awareness and depth of understanding adequate to the proper performance of the following activities:

1. Applying details about the general use of drugs in the preparation and administration of medication subcutaneously, intramuscularly, or orally (Tasks 133, 198, 298, 299).

To accomplish these activities the student must have a detailed knowledge of the subject category, covering the appropriate technical or special terms, facts, equipment, and/or procedures which are part of this discipline and are required for successful completion of the activities listed above.

Cross Reference Footnotes: See The Following Curriculum Objectives:
Same scale value appears in: 296.

CURRICULUM OBJECTIVE SHEET Page 1 of 1

Type of Objective Knowledge Factor VI No. 296
Skill or Knowledge Category 12300000 Scale Value 1.5
Occupation Quality Assurance Aide Level 1
Refers to Task Code No(s).: 260 304

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to demonstrate mastery of the following subject area

Pharmacology (the study of drugs, i.e., chemical compounds or non-infectious biological substances which may be administered as an aid in the diagnosis, treatment, or prevention of disease, for the relief of pain or suffering, or to control or improve any physiological or pathological condition)

at a level of awareness and depth of understanding adequate to the proper performance of the following activities:

1. Applying general details about drugs in the preparation of solutions or hypodermic injections (Tasks 260, 304).

To accomplish these activities the student must have a detailed knowledge of the subject category, covering the appropriate technical or special terms, facts, equipment, and/or procedures which are part of this discipline and are required for successful completion of the activities listed above.

Cross Reference Footnotes: See The Following Curriculum Objectives:
Same scale value appears in: 295.

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Type of Objective Knowledge Factor III No. 297

Skill or Knowledge Category 12331000 Scale Value 1.5

Occupation Radiologic Technologist Level 3

Refers to Task Code No(s).: 375 376 377 378 380 384 385 387 388 389

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to demonstrate mastery of the following subject area

Drug Toxicity (includes antidotal therapy; the adverse effects of drugs due to the nature of the drug)

at a level of awareness and depth of understanding adequate to the proper performance of the following activities:

1. In preparing patient for iodine based contrast study, applying information about drug toxicity to explain to patient what side effects may be felt from contrast medium, such as feeling of nausea, flushing, choking sensation (Tasks 375, 376, 377, 378, 380, 385, 387, 388, 389).

2. In checking on patient's preparations for oral cholecystography and cholangiography, applying information about drug toxicity to question patient or accompanying adult about any reaction to contrast medium that has been administered earlier (such as vomiting or diarrhea) and to determine whether reaction is unusual or severe (Task 384).

To accomplish these activities the student must have a detailed knowledge of the subject category, covering the appropriate technical or special terms, facts, equipment, and/or procedures which are part of this discipline and are required for successful completion of the activities listed above.

Cross Reference Footnotes: See The Following Curriculum Objectives:
Higher scale value appears in: 298.

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Type of Objective Knowledge Factor IV No. 298
Skill or Knowledge Category 12331000 Scale Value 2.5
Occupation Patient Care Technician Level 2
Refers to Task Code No(s).: 133 198 298 299

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to demonstrate mastery of the following subject area

Drug Toxicity (includes antidotal therapy; the adverse effects of drugs due to the nature of the drug)

at a level of awareness and depth of understanding adequate to the proper performance of the following activities:

1. In administering medication subcutaneously, intramuscularly, or orally, applying information about drug toxicity to explain possible side effects to patient and to evaluate after drug is administered whether patient is experiencing a negative side effect (Tasks 133, 198, 298, 299).

To accomplish these activities the student must have a detailed knowledge of the subject category, covering the appropriate technical or special terms, facts, equipment, and/or procedures which are part of this discipline and are required for successful completion of the activities listed above.

Cross Reference Footnotes: See The Following Curriculum Objectives:
Lower scale value appears in: 297.
Same scale value appears in level 4 of patient care.

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Type of Objective Knowledge Factor III No. 299
Skill or Knowledge Category 12332000 Scale Value 1.5
Occupation Radiologic Technologist Level 3
Refers to Task Code No(s).: 375 376 377 378 380 384 385 387 388 389

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to demonstrate mastery of the following subject area

Drug Idiosyncrasy and Allergy Pharmacogenetics (includes increased sensitivity to drugs, decreased responsiveness to drugs, novel drug effects, etc., which are due to inherited physical characteristics and/or idiosyncratic reactions of individuals)

at a level of awareness and depth of understanding adequate to the proper performance of the following activities:

1. In preparing patient for iodine based contrast study, applying information about drug allergy to question patient or accompanying adult about allergy to shellfish or past adverse reactions to contrast medium, especially iodine based; observing patient for signs of allergic reaction such as severe flushing, salivation, choking, vomiting, pallor, fainting, or shock (Tasks 375, 376, 377, 378, 380, 385, 387, 388, 389).

2. Questioning patient about possible allergic reaction to contrast medium; determining whether there is unusual or severe allergic reaction (Task 384).

To accomplish these activities the student must have a detailed knowledge of the subject category, covering the appropriate technical or special terms, facts, equipment, and/or procedures which are part of this discipline and are required for successful completion of the activities listed above.

Cross Reference Footnotes: See The Following Curriculum Objectives:
Higher scale value appears in: 300.

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Type of Objective Knowledge   Factor IV   No. 300

Skill or Knowledge Category 12332000   Scale Value 2.5

Occupation Patient Care Technician   Level 2

Refers to Task Code No(s).: 33 133 198 298 299

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to demonstrate mastery of the following subject area

Drug Idiosyncrasy and Allergy Pharmacogenetics (includes increased sensitivity to drugs, decreased responsiveness to drugs, novel drug effects, etc., which are due to inherited physical characteristics and/or idiosyncratic reactions of individuals)

at a level of awareness and depth of understanding adequate to the proper performance of the following activities:

1. In administering medication subcutaneously, intramuscularly, or orally, applying information about allergic reactions to drugs to consider the possibility of an allergic reaction to medication, to question patient about past allergies, to explain possible allergic reaction, and to evaluate after the drug is administered whether patient is experiencing an allergic reaction (Tasks 33, 133, 198, 298, 299).

To accomplish these activities the student must have a detailed knowledge of the subject category, covering the appropriate technical or special terms, facts, equipment, and/or procedures which are part of this discipline and are required for successful completion of the activities listed above.

Cross Reference Footnotes: See The Following Curriculum Objectives:

Lower scale value appears in: 299.

Same scale value appears in level 4 of patient care.

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Type of Objective Knowledge Factor IV No. 301

Skill or Knowledge Category 12334000 Scale Value 2.5

Occupation Patient Care Technician Level 2

Refers to Task Code No(s).: 133 299

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to demonstrate mastery of the following subject area

Drug Tolerance and Physical Dependence (includes homeostatic adjustment, cumulative effects, tolerance at the site of drug action)

at a level of awareness and depth of understanding adequate to the proper performance of the following activities:

1. In administering medication subcutaneously or intramuscularly, applying information about drug tolerance to consider whether the medication or dosage prescribed may be inappropriate or in error; being able to carry out proper procedures to record administration of narcotic if appropriate (Tasks 133, 299).

To accomplish these activities the student must have a detailed knowledge of the subject category, covering the appropriate technical or special terms, facts, equipment, and/or procedures which are part of this discipline and are required for successful completion of the activities listed above.

Cross Reference Footnote:
Same scale value appears in level 4 of patient care.

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Type of Objective Knowledge Factor IV No. 302

Skill or Knowledge Category 12335000 Scale Value 2.5

Occupation Patient Care Technician Level 2

Refers to Task Code No(s).: 133 198 298 299

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to demonstrate mastery of the following subject area

Drug Synergism (effects of the presence of two or more drugs in the body and the change in drug action this causes due to their interaction)

at a level of awareness and depth of understanding adequate to the proper performance of the following activities:

1. In administering medication subcutaneously, intramuscularly, or orally, applying information about drug synergism to question patient, review information, and consider whether patient's use of other drugs suggests contraindication to administration of prescribed drug, or to explain possible synergistic side effects to patient (Tasks 133, 198, 298, 299).

To accomplish these activities the student must have a detailed knowledge of the subject category, covering the appropriate technical or special terms, facts, equipment, and/or procedures which are part of this discipline and are required for successful completion of the activities listed above.

Cross Reference Footnote:
Same scale value appears in level 4 of patient care.

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Type of Objective Knowledge Factor IV No. 303
Skill or Knowledge Category 12336000 Scale Value 2.5
Occupation Patient Care Technician Level 2
Refers to Task Code No(s).: 133 299

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to demonstrate mastery of the following subject area

Chemical Teratogenesis (special effects of drugs on the fetus during pregnancy)

at a level of awareness and depth of understanding adequate to the proper performance of the following activities:

1. In administering medication subcutaneously or intramuscularly, applying information about chemical teratogenesis to consider whether current or possible pregnancy is a contraindication to the use of the drug prescribed (Tasks 133, 299).

To accomplish these activities the student must have a detailed knowledge of the subject category, covering the appropriate technical or special terms, facts, equipment, and/or procedures which are part of this discipline and are required for successful completion of the activities listed above.

Cross Reference Footnote:
Same scale value appears in level 4 of patient care.

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Type of Objective Knowledge Factor IV No. 304
Skill or Knowledge Category 12341100 Scale Value 2.5
Occupation Patient Care Technician Level 2
Refers to Task Code No(s).: 198 298

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to demonstrate mastery of the following subject area

Antibacterial and Antifungal Chemotherapy (includes antiseptics and germicides, sulfonamides, penicillins, erythromycin, tetracyclines and broad spectrum antibiotics, streptomycin, sulfones, antifungal agents)

at a level of awareness and depth of understanding adequate to the proper performance of the following activities:

1. In administering antibacterial or antifungal medication orally, being able to explain the name and purpose of medication, possible side effects; being able to explain to adult how to help administer to pediatric patient (Tasks 198, 298).

To accomplish these activities the student must have a detailed knowledge of the subject category, covering the appropriate technical or special terms, facts, equipment, and/or procedures which are part of this discipline and are required for successful completion of the activities listed above.

Cross Reference Footnotes: See The Following Curriculum Objectives:
Higher scale value appears in: 305.

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Type of Objective Knowledge Factor IV No. 305

Skill or Knowledge Category 12341100 Scale Value 3.5

Occupation Patient Care Technician Level 2

Refers to Task Code No(s).: 33 133 299

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to demonstrate mastery of the following subject area

Antibacterial and Antifungal Chemotherapy (includes antiseptics and germicides, sulfonamides, penicillins, erythromycin, tetracyclines and broad spectrum antibiotics, streptomycin, sulfones, antifungal agents)

at a level of awareness and depth of understanding adequate to the proper performance of the following activities:

1. In administering antibacterial or antifungal medication after removing sutures, or in injecting subcutaneously or intramuscularly, being able to explain the name, purpose of the medication, how it is to be administered, possible side effects, contraindications; being able to consider whether dosage is appropriate (Tasks 33, 133, 299).

To accomplish these activities the student must have a detailed knowledge of the subject category, covering the appropriate technical or special terms, facts, equipment, and/or procedures which are part of this discipline and are required for successful completion of the activities listed above.

Cross Reference Footnotes: See The Following Curriculum Objectives:
Lower scale value appears in: 304.
Same scale value appears in level 4 of patient care.

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Type of Objective Knowledge Factor IV No. 306

Skill or Knowledge Category 12341300 Scale Value 2.5

Occupation Patient Care Technician Level 2

Refers to Task Code No(s).: 198 298

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to demonstrate mastery of the following subject area

Cancer and Virus Chemotherapy (includes alkylating agents, antimetabolites, steroids and enzymes, interferon induction)

at a level of awareness and depth of understanding adequate to the proper performance of the following activities:

1. In administering medication to treat a cancer or virus orally, being able to explain the name and purpose of medication, possible side effects; being able to explain to adult how to help administer to pediatric patient (Tasks 198, 298).

To accomplish these activities the student must have a detailed knowledge of the subject category, covering the appropriate technical or special terms, facts, equipment, and/or procedures which are part of this discipline and are required for successful completion of the activities listed above.

Cross Reference Footnotes: See The Following Curriculum Objectives:

Higher scale value appears in: 307.

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Type of Objective Knowledge Factor IV No. 307

Skill or Knowledge Category 12341300 Scale Value 3.5

Occupation Patient Care Technician Level 2

Refers to Task Code No(s).: 133 299

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to demonstrate mastery of the following subject area

Cancer and Virus Chemotherapy (includes alkylating agents, antimetabolites, steroids and enzymes, interferon induction)

at a level of awareness and depth of understanding adequate to the proper performance of the following activities:

1. In administering medication to treat a cancer or virus subcutaneously or intramuscularly, being able to explain the name and purpose of the medication, possible side effects, contraindications; being able to consider whether dosage is appropriate (Tasks 133, 299).

To accomplish these activities the student must have a detailed knowledge of the subject category, covering the appropriate technical or special terms, facts, equipment, and/or procedures which are part of this discipline and are required for successful completion of the activities listed above.

Cross Reference Footnotes: See The Following Curriculum Objectives:

Lower scale value appears in: 306.

Same scale value appears in level 4 of patient care.

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Type of Objective Knowledge

Factor IV

No. 308

Skill or Knowledge Category 12342100

Scale Value 1.5

Occupation Patient Care Technician

Level 2

Refers to Task Code No(s).: 296

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to demonstrate mastery of the following subject area

> Drugs Acting on the Cardiovascular System and Smooth Muscle (includes cardiac glycosides, quinidine and anti-arrhythmia agents, coronary vasodilators, diuretics, agents inhibiting the renal tubules, fluids (such as blood, substitutes, electrolytes), agents in atherosclerosis, hypotensive agents, smooth muscle relaxants, smooth muscle stimulants)

at a level of awareness and depth of understanding adequate to the proper performance of the following activities:

1. In the course of administering first aid, being able to judge when to administer an intra-cardiac stimulant and the proper dosage (Task 296).

To accomplish these activities the student must have a detailed knowledge of the subject category, covering the appropriate technical or special terms, facts, equipment, and/or procedures which are part of this discipline and are required for successful completion of the activities listed above.

Cross Reference Footnotes: See The Following Curriculum Objectives:
Higher scale value appears in: 309 310.

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Type of Objective Knowledge Factor IV No. 309

Skill or Knowledge Category 12342100 Scale Value 2.5

Occupation Patient Care Technician Level 2

Refers to Task Code No(s).: 198 298

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to demonstrate mastery of the following subject area

Drugs Acting on the Cardiovascular System and Smooth Muscle (includes cardiac glycosides, quinidine and anti-arrhythmia agents, coronary vasodilators, diuretics, agents inhibiting the renal tubules, fluids (such as blood, substitutes, electrolytes) agents in atherosclerosis, hypotensive agents, smooth muscle relaxants, smooth muscle stimulants)

at a level of awareness and depth of understanding adequate to the proper performance of the following activities:

1. In administering a drug acting on the cardiovascular system or smooth muscles orally, being able to explain the name and purpose of medication, possible side effects; being able to explain to adult how to help administer to pediatric patient (Tasks 198, 298).

To accomplish these activities the student must have a detailed knowledge of the subject category, covering the appropriate technical or special terms, facts, equipment, and/or procedures which are part of this discipline and are required for successful completion of the activities listed above.

Cross Reference Footnotes: See The Following Curriculum Objectives:

Lower scale value appears in: 308.

Higher scale value appears in: 310.

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Type of Objective Knowledge Factor IV No. 310

Skill or Knowledge Category 12342100 Scale Value 3.5

Occupation Patient Care Technician Level 2

Refers to Task Code No(s).: 133 299

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to demonstrate mastery of the following subject area

Drugs Acting on the Cardiovascular System and Smooth Muscle (includes cardiac glycosides, quinidine and anti-arrhythmia agents, coronary vasodilators, diuretics, agents inhibiting the renal tubules, fluids (such as blood, substitutes, electrolytes), agents in atherosclerosis, hypotensive agents, smooth muscle relaxants, smooth muscle stimulants)

at a level of awareness and depth of understanding adequate to the proper performance of the following activities:

1. In administering a drug acting on the cardiovascular system or smooth muscles subcutaneously or intramuscularly, being able to explain the name and purpose of the medication, possible side effects, contraindications; being able to consider whether dosage is appropriate (Tasks 133, 299).

To accomplish these activities the student must have a detailed knowledge of the subject category, covering the appropriate technical or special terms, facts, equipment, and/or procedures which are part of this discipline and are required for successful completion of the activities listed above.

Cross Reference Footnotes: See The Following Curriculum Objectives:

Lower scale value appears in: 308 309.

Same scale value appears in level 4 of patient care.

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Type of Objective Knowledge Factor IV No. 311
Skill or Knowledge Category 12342200 Scale Value 2.5
Occupation Patient Care Technician Level 2
Refers to Task Code No(s).: 198 298

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to demonstrate mastery of the following subject area

Drugs Acting on the Blood (includes agents in anemia, anticoagulants and coagulants)

at a level of awareness and depth of understanding adequate to the proper performance of the following activities:

1. In administering a drug acting on the blood orally, being able to explain the name and purpose of medication, possible side effects; being able to explain to adult how to help administer to pediatric patient (Tasks 198, 298).

To accomplish these activities the student must have a detailed knowledge of the subject category, covering the appropriate technical or special terms, facts, equipment, and/or procedures which are part of this discipline and are required for successful completion of the activities listed above.

Cross Reference Footnotes: See The Following Curriculum Objectives:
Higher scale value appears in: 312.

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Type of Objective Knowledge Factor IV No. 312
Skill or Knowledge Category 12342200 Scale Value 3.5
Occupation Patient Care Technician Level 2
Refers to Task Code No(s).: 133 299

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to demonstrate mastery of the following subject area

Drugs Acting on the Blood (includes agents in anemia, anticoagulants and coagulants)

at a level of awareness and depth of understanding adequate to the proper performance of the following activities:

1. In administering a drug acting on the blood subcutaneously or intramuscularly, being able to explain the name and purpose of the medication, possible side effects, contraindications; being able to consider whether dosage is appropriate (Tasks 133, 299).

To accomplish these activities the student must have a detailed knowledge of the subject category, covering the appropriate technical or special terms, facts, equipment, and/or procedures which are part of this discipline and are required for successful completion of the activities listed above.

Cross Reference Footnotes: See The Following Curriculum Objectives:
Lower scale value appears in: 311.
Same scale value appears in level 4 of patient care.

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Type of Objective Knowledge Factor IV No. 313
Skill or Knowledge Category 12342300 Scale Value 2.5
Occupation Patient Care Technician Level 2
Refers to Task Code No(s).: 198 298

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to demonstrate mastery of the following subject area

Hormones and Drugs Acting on Endocrine Glands and Accessory Reproductive Organs (includes adrenal cortical hormones and corticotropin, thyroid and thyrotropic hormones, sex hormones and gonadotropins, anterior pituitary, agents in diabetes mellitus, parathyroid hormone and calcium metabolism)

at a level of awareness and depth of understanding adequate to the proper performance of the following activities:

1. In administering a hormone or a drug acting on the endocrine glands or accessory reproductive organs orally, being able to explain the name and purpose of medication, possible side effects; being able to explain to adult how to help administer to pediatric patient (Tasks 198, 298).

To accomplish these activities the student must have a detailed knowledge of the subject category, covering the appropriate technical or special terms, facts, equipment, and/or procedures which are part of this discipline and are required for successful completion of the activities listed above.

Cross Reference Footnotes: See The Following Curriculum Objectives:
Higher scale value appears in: 314.

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Type of Objective Knowledge
Factor IV
No. 314
Skill or Knowledge Category 12342300
Scale Value 3.5
Occupation Patient Care Technician
Level 2
Refers to Task Code No(s).: 133 299

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to demonstrate mastery of the following subject area

Hormones and Drugs Acting on Endocrine Glands and Accessory Reproductive Organs (includes adrenal cortical hormones and corticotropin, thyroid and thyrotropic hormones, sex hormones and gonadotropins, anterior pituitary, agents in diabetes mellitus, parathyroid hormone and calcium metabolism)

at a level of awareness and depth of understanding adequate to the proper performance of the following activities:

1. In administering a hormone or a drug acting on the endocrine glands or accessory reproductive organs subcutaneously or intramuscularly, being able to explain the name and purpose of the medication, possible side effects, contraindications; being able to consider whether dosage is appropriate (Tasks 133, 299).

To accomplish these activities the student must have a detailed knowledge of the subject category, covering the appropriate technical or special terms, facts, equipment, and/or procedures which are part of this discipline and are required for successful completion of the activities listed above.

Cross Reference Footnotes: See The Following Curriculum Objectives:
Lower scale value appears in: 313.
Same scale value appears in level 4 of patient care.

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Type of Objective Knowledge Factor IV No. 315
Skill or Knowledge Category 12342600 Scale Value 2.5
Occupation Patient Care Technician Level 2
Refers to Task Code No(s).: 198 298

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to demonstrate mastery of the following subject area

Drugs for Allergy, Cough, Vomiting and the Dermatomucosal Surfaces (includes anti-immune drugs, antitussives, antiemetics, dermatomucosal agents)

at a level of awareness and depth of understanding adequate to the proper performance of the following activities:

1. In administering a drug to treat allergy, cough, vomiting, or a dermatomucosal agent orally, being able to explain the name and purpose of medication, possible side effects; being able to explain to adult how to help administer to pediatric patient (Tasks 198, 298).

To accomplish these activities the student must have a detailed knowledge of the subject category, covering the appropriate technical or special terms, facts, equipment, and/or procedures which are part of this discipline and are required for successful completion of the activities listed above.

Cross Reference Footnotes: See The Following Curriculum Objectives:
Higher scale value appears in: 316.

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Type of Objective Knowledge Factor IV No. 316
Skill or Knowledge Category 12342600 Scale Value 3.5
Occupation Patient Care Technician Level 2
Refers to Task Code No(s).: 133 299

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to demonstrate mastery of the following subject area

Drugs for Allergy, Cough, Vomiting and the Dermatomucosal Surfaces (includes anti-immune drugs, antitussives, antiemetics, dermatomucosal agents)

at a level of awareness and depth of understanding adequate to the proper performance of the following activities:

1. In administering a drug to treat allergy, cough, vomiting, or a dermatomucosal agent subcutaneously or intramuscularly, being able to explain the name and purpose of the medication, possible side effects, contraindications; being able to consider whether dosage is appropriate (Tasks 133, 299).

To accomplish these activities the student must have a detailed knowledge of the subject category, covering the appropriate technical or special terms, facts, equipment, and/or procedures which are part of this discipline and are required for successful completion of the activities listed above.

Cross Reference Footnotes: See The Following Curriculum Objectives:
Lower scale value appears in: 315.
Same scale value appears in level 4 of patient care.

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Type of Objective Knowledge Factor IV No. 317

Skill or Knowledge Category 12342700 Scale Value 2.5

Occupation Patient Care Technician Level 2

Refers to Task Code No(s).: 198 298

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to demonstrate mastery of the following subject area

Drugs Acting on the Gastrointestinal Tract (includes drugs effective in ulcer therapy, cathartics and laxatives, digestants and drugs useful in gallbladder disease)

at a level of awareness and depth of understanding adequate to the proper performance of the following activities:

1. In administering a drug to act on the gastrointestinal tract orally, being able to explain the name and purpose of medication, possible side effects; being able to explain to adult how to help administer to pediatric patient (Tasks 198, 298).

To accomplish these activities the student must have a detailed knowledge of the subject category, covering the appropriate technical or special terms, facts, equipment, and/or procedures which are part of this discipline and are required for successful completion of the activities listed above.

Cross Reference Footnotes: See The Following Curriculum Objectives:
Higher scale value appears in: 318.

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Type of Objective Knowledge	Factor IV	No. 318	
Skill or Knowledge Category 12342700		Scale Value 3.5	
Occupation Patient Care Technician		Level 2	
Refers to Task Code No(s).: 133 299			

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to demonstrate mastery of the following subject area

Drugs Acting on the Gastrointestinal Tract (includes drugs effective in ulcer therapy, cathartics and laxatives, digestants and drugs useful in gallbladder disease)

at a level of awareness and depth of understanding adequate to the proper performance of the following activities:

1. In administering a drug to act on the gastrointestinal tract subcutaneously or intramuscularly, being able to explain the name and purpose of the medication, possible side effects, contraindications; being able to consider whether dosage is appropriate (Tasks 133, 299).

To accomplish these activities the student must have a detailed knowledge of the subject category, covering the appropriate technical or special terms, facts, equipment, and/or procedures which are part of this discipline and are required for successful completion of the activities listed above.

Cross Reference Footnotes: See The Following Curriculum Objectives:
Lower scale value appears in: 317.
Same scale value appears in level 4 of patient care.

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Type of Objective Knowledge Factor IV No. 319

Skill or Knowledge Category 12342810 Scale Value 2.5

Occupation Patient Care Technician Level 2

Refers to Task Code No(s).: 198 298

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to demonstrate mastery of the following subject area

Drugs Acting on the Autonomic Nervous System (includes sympathetic stimulants, sympathetic depressants, parasympathetic stimulants, parasympathetic depressants, ganglionic agents)

at a level of awareness and depth of understanding adequate to the proper performance of the following activities:

1. In administering a drug to act on the autonomic nervous system orally, being able to explain the name and purpose of medication, possible side effects; being able to explain to adult how to help administer to pediatric patient (Tasks 198, 298).

To accomplish these activities the student must have a detailed knowledge of the subject category, covering the appropriate technical or special terms, facts, equipment, and/or procedures which are part of this discipline and are required for successful completion of the activities listed above.

Cross Reference Footnotes: See The Following Curriculum Objectives:
Higher scale value appears in: 320.

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Type of Objective Knowledge Factor IV No. 320
Skill or Knowledge Category 12342810 Scale Value 3.5
Occupation Patient Care Technician Level 2
Refers to Task Code No(s).: 133 299

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to demonstrate mastery of the following subject area

Drugs Acting on the Autonomic Nervous System (includes sympathetic stimulants, sympathetic depressants, parasympathetic stimulants, parasympathetic depressants, ganglionic agents)

at a level of awareness and depth of understanding adequate to the proper performance of the following activities:

1. In administering a drug to act on the autonomic nervous system subcutaneously or intramuscularly, being able to explain the name and purpose of the medication, possible side effects, contraindications; being able to consider whether dosage is appropriate (Tasks 133, 299).

To accomplish these activities the student must have a detailed knowledge of the subject category, covering the appropriate technical or special terms, facts, equipment, and/or procedures which are part of this discipline and are required for successful completion of the activities listed above.

Cross Reference Footnotes: See The Following Curriculum Objectives:
Lower scale value appears in: 319.
Same scale value appears in level 4 of patient care.

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Type of Objective Knowledge Factor IV No. 321
Skill or Knowledge Category 12342820 Scale Value 2.5
Occupation Patient Care Technician Level 2
Refers to Task Code No(s).: 198 298

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to demonstrate mastery of the following subject area

Drugs Acting on the Neuromuscular System (includes myoneural agents, muscle relaxants)

at a level of awareness and depth of understanding adequate to the proper performance of the following activities:

1. In administering a drug to act on the neuromuscular system orally, being able to explain the name and purpose of medication, possible side effects; being able to explain to adult how to help administer to pediatric patient (Tasks 198, 298).

To accomplish these activities the student must have a detailed knowledge of the subject category, covering the appropriate technical or special terms, facts, equipment, and/or procedures which are part of this discipline and are required for successful completion of the activities listed above.

Cross Reference Footnotes: See The Following Curriculum Objectives:
Higher scale value appears in: 322.

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Type of Objective Knowledge

Factor IV

No. 322

Skill or Knowledge Category 12342820

Scale Value 3.5

Occupation Patient Care Technician

Level 2

Refers to Task Code No(s).: 133 299

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to demonstrate mastery of the following subject area

Drugs Acting on the Neuromuscular System (includes myoneural agents, muscle relaxants)

at a level of awareness and depth of understanding adequate to the proper performance of the following activities:

1. In administering a drug to act on the neuromuscular system subcutaneously or intramuscularly, being able to explain the name and purpose of the medication, possible side effects, contraindications; being able to consider whether dosage is appropriate (Tasks 133, 299).

To accomplish these activities the student must have a detailed knowledge of the subject category, covering the appropriate technical or special terms, facts, equipment, and/or procedures which are part of this discipline and are required for successful completion of the activities listed above.

Cross Reference Footnotes: See The Following Curriculum Objectives:

Lower scale value appears in: 321.

Same scale value appears in level 4 of patient care.

CURRICULUM OBJECTIVE SHEET

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Type of Objective Knowledge Factor III No. 323
Skill or Knowledge Category 12342830 Scale Value 1.5
Occupation Radiologic Technologist Level 3
Refers to Task Code No(s).: 353 355 356 357 358 359 360 361 362 363 364 365 366
374 375 376 377 378 379 380 386 388 389 390 465 467 491 492 493 494 495 496 499
500 501 502 403 504 505 506 507 508 509 510 511 512 513 514 (*continued below)
Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to demonstrate mastery of the following subject area

Drugs Acting on the Central Nervous System (includes narcotic analgesics, non-narcotic analgesics, sedatives and hypnotics, anticonvulsants, tranquilizers, drug addiction, alcohol, psychomimetic agents, drugs affecting the mind)

at a level of awareness and depth of understanding adequate to the proper performance of the following activities:

1. In participating in meeting of diagnostic x-ray department technologists, being able to comprehend, raise issues, or participate in any discussion dealing with sedatives or other drugs acting on the central nervous system as it affects patient care in radiographic examinations (Task 353).

2. In preparing for a radiographic examination, being able to recognize when a patient's record calls for prior sedation or any other drug acting on the central nervous system, and checking or allowing for a proper elapse of time for the medication to take effect; being able to take account of effects of sedation on the patient's behavior and state of awareness (all tasks listed except Task 353).

To accomplish these activities the student must have a detailed knowledge of the subject category, covering the appropriate technical or special terms, facts, equipment, and/or procedures which are part of this discipline and are required for successful completion of the activities listed above.

Cross Reference Footnotes: See The Following Curriculum Objectives:
Higher scale value appears in: 324 325.

* 515 516 517 518 519 526.

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Type of Objective Knowledge Factor IV No. 324
Skill or Knowledge Category 12342830 Scale Value 2.5
Occupation Patient Care Technician Level 2
Refers to Task Code No(s).: 198 298

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to demonstrate mastery of the following subject area

Drugs Acting on the Central Nervous System (includes narcotic analgesics, non-narcotic analgesics, sedatives and hypnotics, anticonvulsants, tranquilizers, drug addiction, alcohol, psychomimetic agents, drugs affecting the mind)

at a level of awareness and depth of understanding adequate to the proper performance of the following activities:

1. In administering a sedative or other medication to act on the central nervous system orally, being able to explain the name and purpose of medication, possible side effects; being able to explain to adult how to help administer to pediatric patient (Tasks 198, 298).

To accomplish these activities the student must have a detailed knowledge of the subject category, covering the appropriate technical or special terms, facts, equipment, and/or procedures which are part of this discipline and are required for successful completion of the activities listed above.

Cross Reference Footnotes: See The Following Curriculum Objectives:
Lower scale value appears in: 323.
Higher scale value appears in: 325.

CURRICULUM OBJECTIVE SHEET

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Type of Objective Knowledge Factor IV No. 325
Skill or Knowledge Category 12342830 Scale Value 3.5
Occupation Patient Care Technician Level 2
Refers to Task Code No(s).: 133 299

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to demonstrate mastery of the following subject area

Drugs Acting on the Central Nervous System (includes narcotic analgesics, non-narcotic analgesics, sedatives and hypnotics, anticonvulsants, tranquilizers, drug addiction, alcohol, psychomimetic agents, drugs affecting the mind)

at a level of awareness and depth of understanding adequate to the proper performance of the following activities:

1. In administering a drug to act on the central nervous system subcutaneously or intramuscularly, being able to explain the name and purpose of the medication, possible side effects, contraindications; being able to consider whether dosage is appropriate (Tasks 133, 299).

To accomplish these activities the student must have a detailed knowledge of the subject category, covering the appropriate technical or special terms, facts, equipment, and/or procedures which are part of this discipline and are required for successful completion of the activities listed above.

Cross Reference Footnotes: See The Following Curriculum Objectives:
Lower scale value appears in: 323 324.
Same scale value appears in level 4 of patient care.

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Type of Objective Knowledge Factor IV No. 326

Skill or Knowledge Category 12342900 Scale Value 2.5

Occupation Patient Care Technician Level 2

Refers to Task Code No(s).: 198 298

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to demonstrate mastery of the following subject area

Drugs Acting on the Immunologic System

at a level of awareness and depth of understanding adequate to the proper performance of the following activities:

1. In administering a drug to act on the immunologic system orally, being able to explain the name and purpose of medication, possible side effects; being able to explain to adult how to help administer to pediatric patient (Tasks 198, 298).

To accomplish these activities the student must have a detailed knowledge of the subject category, covering the appropriate technical or special terms, facts, equipment, and/or procedures which are part of this discipline and are required for successful completion of the activities listed above.

Cross Reference Footnotes: See The Following Curriculum Objectives:
Higher scale value appears in: 327.

CURRICULUM OBJECTIVE SHEET

Type of Objective Knowledge

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Skill or Knowledge Category 12342900 Factor IV No. 327

Occupation Patient Care Technician Scale Value 3.5

Refers to Task Code No(s).: 133 299 Level 2

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to demonstrate mastery of the following subject area

Drugs Acting on the Immunologic System

at a level of awareness and depth of understanding adequate to the proper performance of the following activities:

1. In administering a drug to act on the immunologic system subcutaneously or intramuscularly, being able to explain the name and purpose of the medication, possible side effects, contraindications; being able to consider whether dosage is appropriate (Tasks 133, 299).

To accomplish these activities the student must have a detailed knowledge of the subject category, covering the appropriate technical or special terms, facts, equipment, and/or procedures which are part of this discipline and are required for successful completion of the activities listed above.

Cross Reference Footnotes: See The Following Curriculum Objectives:

Lower scale value appears in: 326.

Same scale value appears in level 4 of patient care.

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Type of Objective Knowledge Factor VI No. 328
Skill or Knowledge Category 15212100 Scale Value 1.5
Occupation Quality Assurance Technician Level 2
Refers to Task Code No(s).: 532 535 536 543 556

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to demonstrate mastery of the following subject area

Electric Circuit Theory (includes Ohm's law, Kirchhoff's laws, impedance, inductance, resistance, amperage, voltage, potentiometry, bridges, alternating and direct current, wave-guides, transmission)

at a level of awareness and depth of understanding adequate to the proper performance of the following activities:

1. In performing direct calibration tests of diagnostic radiography exposure timers, being able to apply information about electric circuits to select the appropriate test based on the type of rectification and phase system involved, and take proper precautions with regard to shock hazards (Task 532).

2. In performing tests of kVp, mA, mAs calibration using direct measuring instruments, being able to apply information about electric circuits to use proper safety precautions with regard to shock hazard, and set up kVp measuring system by removing high voltage cables from x-ray tube and inserting into voltmeter, connecting to measure the voltage between the x-ray tube electrode and ground, or total voltage across tube;

   being able to set up for kVp waveform test so that voltage dividers provide inputs to oscilloscope;

   being able to take proper precautions against shock hazard and insert an mA meter across filament circuit to directly measure filament current; being able to attach an mAs meter or a digital voltmeter to read mAs by placing in the neutral or ground lead from the x-ray transformer, in the secondary circuit near ground potential, or in series with the anode conductor to the x-ray tube, or connect a high-potential insulated milliampere meter directly to the high voltage circuit;

   being able to connect an ionization chamber to an electrometer to measure exposure and place in a standard position (Task 535).

3. In inspecting a diagnostic radiography system, applying information about electric circuits to examine condition of high voltage cables such as tight retaining rings at termination points, intact insulation and shielding, and safe draping of cables; being able to inspect grounding, condition of power cords and exposed wires for signs of fraying, breaks, or wear; being able to recognize electrical hazards (Task 536).

CURRICULUM OBJECTIVE SHEET (continued) Page 2 of 2

Type of Objective Knowledge Factor VI No. 328

Skill or Knowledge Cagegory 15212100 Electric Circuit Theory Scale Value 1.5

Content Continued

4. In monitoring and evaluating film processors, applying information about electric circuits to determine whether test results indicate malfunction of electrical components in the processor (Task 543).

5. In calibrating electrical measuring instruments, applying information about electric circuits to follow manufacturers' specifications and carry out tests properly (Task 556).

To accomplish these activities the student must have a detailed knowledge of the subject category, covering the appropriate technical or special terms, facts, equipment, and/or procedures which are part of this discipline and are required for successful completion of the activities listed above.

Cross Reference Footnote:
Higher scale value appears in level 5.

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Type of Objective Knowledge Factor IV No. 329
Skill or Knowledge Category 15222500 Scale Value 1.5
Occupation Patient Care Technician Level 2
Refers to Task Code No(s).: 280

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to demonstrate mastery of the following subject area

Interaction With Radiation (includes inversion spectra-absorption of microwave radiation)

at a level of awareness and depth of understanding adequate to the proper performance of the following activities:

1. In participating in monitoring of personal exposure to radiation, understanding details about the properties and behavior of electromagnetic ionizing radiation such as x-rays, gamma rays in interaction with living tissue (transfer of energy from the radiation to molecules of the cells) and with other forms of matter to be able to take account of scattering, the qualities of radiolucent and radiopaque materials, absorption and density qualities of matter to understand the reason for monitoring, how to deal with the detection device, and to be able to determine when accidental excessive personal exposure may have occurred (Task 280).

To accomplish these activities the student must have a detailed knowledge of the subject category, covering the appropriate technical or special terms, facts, equipment, and/or procedures which are part of this discipline and are required for successful completion of the activities listed above.

Cross Reference Footnotes: See The Following Curriculum Objectives:
Same scale value appears in: 330 331.

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Type of Objective Knowledge Factor VI No. 330

Skill or Knowledge Category 15222500 Scale Value 1.5

Occupation Quality Assurance Technician Level 2

Refers to Task Code No(s).: 173 175 178 187 280 529 530 531 532 533 534 535 537 538 539 540 543 544 545 548 549 550 556

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to demonstrate mastery of the following subejct area

Interaction With Radiation (includes inversion spectra-absorption of microwave radiation)

at a level of awareness and depth of understanding adequate to the proper performance of the following activities:

1. Taking account of details of x-radiation properties such as scattering, the qualities of radiolucent and radiopaque materials, absorption and density properties of matter to carry out tests of x-ray equipment involving exposure of test films, masking of areas of test films, and attention to personal safety (Tasks 173, 175, 178, 187, 529, 530, 531, 533, 534, 535, 537, 538, 539, 540, 544, 545).

2. In participating in monitoring of personal exposure to radiation, understanding details about the properties and behavior of electromagnetic ionizing radiation such as x-rays, gamma rays in interaction with living tissue (transfer of energy from the radiation to molecules of the cells) and with other forms of matter to be able to take account of scattering, the qualities of radiolucent and radiopaque materials, absorption and density qualities of matter to understand the reason for monitoring, how to deal with the detection device, and to be able to determine when excessive personal exposure may have occurred (Task 280).

3. Applying details about the properties and behavior of electromagnetic ionizing radiation such as x-rays in interaction with living tissue (transfer of energy from the radiation to molecules of the cells) and with other forms of matter (such as attenuating material to reduce the exposure rate of a beam of radiation) to be able to use test equipment such as radiation devices appropriately; to understand and explain the effects of deviations from acceptable safety standards for x-ray equipment on patient exposure and the quality of the radiographic image (Tasks 529, 530, 531, 532, 533, 534, 535, 537, 538, 539, 540, 545, 548, 549, 550).

4. Applying details about the properties and behavior of gamma rays in interaction with living tissue and other matter to safely handle a gamma ray source in producing a standard test film exposure or calibrating test instruments (Tasks 543, 556).

CURRICULUM OBJECTIVE SHEET (continued)

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Type of Objective Knowledge Factor VI No. 330

Skill or Knowledge Cagegory 15222500 Scale Value 1.5

Content Continued

5. Applying details about x-radiation properties such as scattering, stray radiation, absorption and density to carry out radiation protection survey correctly, determine the safest positions for personnel who must remain in room during exposure, and consider means of reducing personnel or patient exposure (Task 550).

To accomplish these activities the student must have a detailed knowledge of the subject category, covering the appropriate technical or special terms, facts, equipment, and/or procedures which are part of this discipline and are required for successful completion of the activities listed above.

Cross Reference Footnotes: See The Following Curriculum Objectives:
Same scale value appears in: 329 331.
Higher scale value appears in level 5.

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Type of Objective Knowledge Factor III No. 331
Skill or Knowledge Category 15222500 Scale Value 1.5
Occupation Radiologic Technician Level 3
Refers to Task Code No(s).: 280 353 355 356 357 358 359 360 361 362 363 364 365 366 367 368 369 370 371 372 373 374 375 376 377 378 379 380 381 382 383 384 385 386 387 388 389 390 463 464 465 466 467 468 491 492 493 494 (*continued below)
Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to demonstrate mastery of the following subject area

Interaction With Radiation (includes inversion spectra-absorption of microwave radiation)

at a level of awareness and depth of understanding adequate to the proper performance of the following activities:

1. In participating in monitoring of personal exposure to radiation, understanding details about the properties and behavior of electromagnetic ionizing radiation such as x-rays, gamma rays in interaction with living tissue (transfer of energy from the radiation to molecules of the cells) and with other forms of matter to be able to take account of scattering, the qualities of radiolucent and radiopaque materials, absorption and density qualities of matter to understand the reason for monitoring, how to deal with the detection device, and to be able to determine when accidental excessive personal exposure may have occurred (Task 280).

2. In participating in meeting of diagnostic x-ray department technologists, being able to comprehend, raise issues, or participate in any discussion dealing with the interaction of ionizing radiation with living tissue and other matter as it affects patient care and the conduct of radiographic examinations (Tasks 353).

3. Understanding and applying details about the properties and behavior of electromagnetic ionizing x-radiation in interaction with living tissues including scattering, the attenuating properties of materials, and the effects of technical exposure factors, distance, and field size to provide diagnostic quality radiographs most safely or give proper assistance during diagnostic examinations involving x-rays; being able to understand the reason for and provide minimum exposure compatible with diagnostic quality images when selecting or converting exposure factors; being able to understand the reason for and provide collimation to the area of interest, appropriate shielding to patients and personnel (all tasks listed except Tasks 280 and 353).

4. Understanding and applying details about the attenuation properties of materials in interaction with x-radiation, the qualities of radiolucent and radiopaque materials, absorption, and density to appropriately select technical factors for radiographic examinations according to the nature

CURRICULUM OBJECTIVE SHEET (continued) Page 2 of 2

Type of Objective Knowledge Factor III No. 331
Skill or Knowledge Cagegory 15222500 Interaction With Radiation Scale Value 1.5

Content Continued

of tissue (such as fatty or dense), whether contrast media is being used; being able to judge when objects or substances on the patient's body must be removed or taken account of in the selection of technical factors or in positioning (tasks listed as appropriate except Tasks 280 and 353).

To accomplish these activities the student must have a detailed knowledge of the subject category, covering the appropriate technical or special terms, facts,equipment, and/or procedures which are part of this discipline and are required for successful completion of the activities listed above.

Cross Reference Footnotes: See The Following Curriculum Objectives:
Same scale value appears in: 329 330 and level 4.
Higher scale value appears in level 5.

* 495 496 497 498 499 500 501 502 503 504 505 506 507 508 509 510 511 512 513 514 515 516 517 518 519 526.

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Type of Objective Knowledge Factor VI No. 332

Skill or Knowledge Category 24110000 Scale Value 1.5

Occupation Quality Assurance Technician Level 2

Refers to Task Code No(s).: 535

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to demonstrate mastery of the following subject area

Electromagnetic Field Theory Applications (includes electromagnetic devices and energy conversion)

at a level of awareness and depth of understanding adequate to the proper performance of the following activities:

1. Applying details of electromagnetic field theory to directly measure the output of diagnostic x-ray units using proper instruments, taking precautions with regard to shock hazards; being able to check and evaluate kVp waveform (Task 535).

To accomplish these activities the student must have a detailed knowledge of the subject category, covering the appropriate technical or special terms, facts, equipment, and/or procedures which are part of this discipline and are required for successful completion of the activities listed above.

Cross Reference Footnote:
Same scale value appears in level 5.

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Type of Objective Knowledge Factor VI No. 333
Skill or Knowledge Category 24132100 Scale Value 1.5
Occupation Quality Assurance Technician Level 2
Refers to Task Code No(s).: 532 535 545 548 549 550 556

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to demonstrate mastery of the following subject area

Electronic Devices

at a level of awareness and depth of understanding adequate to the proper performance of the following activities:

1. Applying details about the uses and characteristics of electronic devices to perform direct calibration tests of diagnostic radiography exposure timers using a pulse counter, chronometer, or oscilloscope as appropriate to type of rectification and phase system involved (Task 532).

2. Being able to perform direct measurements of output of diagnostic radiography equipment using survey meters, kVp, mA, mAs measuring instruments, oscilloscope, electrometer as appropriate to the equipment and test involved (Task 535).

3. Being able to use electronic devices as appropriate to monitor patient radiation exposure rates, entrance exposure rates, primary barrier transmitted radiation rates, leakage radiation from the source assembly, stray radiation, primary and secondary barrier transmitted radiation rates (Tasks 545, 548, 549, 550).

4. Being able to use appropriate instruments to calibrate diagnostic x-ray test, survey, or electrical measuring instruments (Task 556).

To accomplish these activities the student must have a detailed knowledge of the subject category, covering the appropriate technical or special terms, facts, equipment, and/or procedures which are part of this discipline and are required for successful completion of the activities listed above.

Cross Reference Footnote:
Higher scale value appears in level 5.

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Type of Objective Knowledge Factor VI No. 334

Skill or Knowledge Category 33000000 Scale Value 1.5

Occupation Quality Assurance Aide Level 1

Refers to Task Code No(s).: 8

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to demonstrate mastery of the following subject area

Computer Technology

at a level of awareness and depth of understanding adequate to the proper performance of the following activities:

1. Applying details about computer operation to shut down computerized transverse axial tomography equipment involving computer components; being able to unload disc and/or tape unit, turn off appropriate switches, and comprehend language related to computer components if reading operator's manual (Task 8).

To accomplish these activities the student must have a detailed knowledge of the subject category, covering the appropriate technical or special terms, facts, equipment, and/or procedures which are part of this discipline and are required for successful completion of the activities listed above.

Cross Reference Footnotes: See The Following Curriculum Objectives:
Same scale value appears in: 335 336.

CURRICULUM OBJECTIVE SHEET Page 1 of 1

Type of Objective Knowledge Factor VI No. 335

Skill or Knowledge Category 33000000 Scale Value 1.5

Occupation Quality Assurance Technician Level 2

Refers to Task Code No(s).: 523 525 527

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to demonstrate mastery of the following subject area

Computer Technology

at a level of awareness and depth of understanding adequate to the proper performance of the following activities:

1. Applying details about computer operation to turn on control units of computerized transverse axial tomography equipment, comprehend language related to computer components if reading operator's manual (Task 523).

2. Applying details about computer operation to check calibration and accuracy of computerized transverse axial tomography equipment,or retrieve, display, and copy scans; being able to set controls, work with teletype or other data terminal controlling computer, use line printer, load system programs using disc or tape; being able to select, call,and use appropriate programs, enter information into memory, rewind tape, evaluate if computer is functioning, respond to problem, and comprehend terms in operator's manual (Tasks 525, 527).

To accomplish these activities the student must have a detailed knowledge of the subject category, covering the appropriate technical or special terms, facts, equipment, and/or procedures which are part of this discipline and are required for successful completion of the activities listed above.

Cross Reference Footnotes: See The Following Curriculum Objectives:

Same scale value appears in: 334 336.

Higher scale value appears in level 5.

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Type of Objective Knowledge Factor III No. 336
Skill or Knowledge Category 33000000 Scale Value 1.5
Occupation Radiologic Technologist Level 3
Refers to Task Code No(s).: 526

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to demonstrate mastery of the following subject area

Computer Technology

at a level of awareness and depth of understanding adequate to the proper performance of the following activities:

1. Applying details about computer operation to take computerized transverse axial tomography scans; being able to set controls, work with teletype or other data terminal controlling computer, use line printer, load system programs using disc or tape; being able to enter appropriate control codes, select, call, and use appropriate programs, enter information into memory, initiate or interrupt scanning, call scan data for visual display, obtain print-outs, rewind, and comprehend terms in operator's manual (Task 526).

To accomplish these activities the student must have a detailed knowledge of the subject category, covering the appropriate technical or special terms, facts, equipment, and/or procedures which are part of this discipline and are required for successful completion of the activities listed above.

Cross Reference Footnotes: See The Following Curriculum Objectives:
Same scale value appears in 334 335 and level 4.
Higher scale value appears in level 5.

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Type of Objective Knowledge Factor III No. 337

Skill or Knowledge Category 41666700 Scale Value 1.5

Occupation Radiologic Technologist Level 3

Refers to Task Code No(s).: 353 362 363 364 365 366 368 374 376 378 381 382 383 385 386 387 388 389 390 463 465 498 499 500 501 502 504 505 506 508 509 511 512 513 514 515 516 517 518 519 526

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to demonstrate mastery of the following subject area

Death and Dying Behavioral Development

at a level of awareness and depth of understanding adequate to the proper performance of the following activities:

1. In participating in meeting of diagnostic x-ray department technologists, being able to comprehend, raise issues, or participate in any discussion dealing with the behavioral and emotional problems of patients who are or may be terminally ill as it affects patient care during radiographic examinations (Task 353).

2. In taking radiographs or providing technical assistance during fluoroscopic examinations or angiography involving patients who are or may be terminally ill, being able to apply information about the behavior and emotional state of such patients in order to reassure, assist them during the procedure, treat them with sympathy, dignity, and understanding; being able to recognize negative, withdrawn, frightened, or irrational behavior as part of the process so as not to take this personally; being able to treat the patient with dignity and concern regardless of the patient's behavior (Tasks listed as appropriate except Task 353).

To accomplish these activities the student must have a detailed knowledge of the subject category, covering the appropriate technical or special terms, facts, equipment, and/or procedures which are part of this discipline and are required for successful completion of the activities listed above.

Cross Reference Footnote:
Same scale value appears in level 4.

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Type of Objective Knowledge Factor IV No. 338
Skill or Knowledge Category 51200000 Scale Value 1.5
Occupation Quality Assurance Technician Level 2
Refers to Task Code No(s).: 173 529 530 531 535

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to demonstrate mastery of the following subject area

Algebra

at a level of awareness and depth of understanding adequate to the proper performance of the following activities:

1. Applying details of algebra to carry out tests of diagnostic x-ray equipment, prepare test data for evaluation; being able to make extrapolations using ratio equations (Tasks 173, 530, 531);

   being able to use the formula for magnification to solve for dimensions such as target-object distance or the size of the exposure field at the level of the image receptor (Tasks 529, 530);

   being able to use simple formulas to solve for unknown quantities (Task 535);

To accomplish these activities the student must have a detailed knowledge of the subject category, covering the appropriate technical or special terms, facts, equipment, and/or procedures which are part of this discipline and are required for successful completion of the activities listed above.

Cross Reference Footnotes: See The Following Curriculum Objectives:
Same scale value appears in: 339 and level 5.

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Type of Objective Knowledge Factor III No. 339

Skill or Knowledge Category 51200000 Scale Value 1.5

Occupation Radiologic Technologist Level 3

Refers to Task Code No(s).: 355 356 357 358 359 360 361 362 365 375 491 492 493 494 495 496 511 518

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to demonstrate mastery of the following subject area

Algebra

at a level of awareness and depth of understanding adequate to the proper performance of the following activities:

1. In setting up for magnification technique during radiography or fluoroscopy, applying details of algebra to calculate the distances from target to object, from object to film or image receptor, and from target to film or image receptor using the formula for magnification (all tasks listed).

To accomplish these activities the student must have a detailed knowledge of the subject category, covering the appropriate technical or special terms, facts, equipment, and/or procedures which are part of this discipline and are required for successful completion of the activities listed above.

Cross Reference Footnotes: See The Following Curriculum Objectives:
Same scale value appears in: 338 and levels 4 and 5.

CURRICULUM OBJECTIVE SHEET

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Type of Objective Knowledge Factor VI No. 340

Skill or Knowledge Category 52220000 Scale Value 1.5

Occupation Quality Assurance Technician Level 2

Refers to Task Code No(s).: 535 538 543 544 553

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to demonstrate mastery of the following subject area

Descriptive Statistics (includes standard frequency and distribution functions, measures of location such as mean, median, and mode, measures of dispersion, graphic and tabular representation of data)

at a level of awareness and depth of understanding adequate to the proper performance of the following activities:

1. Applying details of descriptive statistics in order to carry out tests of diagnostic x-ray equipment, prepare and evaluate test data; being able to use linear graph paper to plot kVp waveform as displayed on oscilloscope, evaluate exposure rate and area under waveforms as a function of kilovoltage or added filtration; being able to calculate coefficient of variation, coefficient of linearity, average exposure rates in connection with calibration tests (Task 535);

   being able to plot exposure readings on semi-log paper and read the HVL of an x-ray unit (Task 538);

   being able to calculate averages and variations from the average of the density of test films and of the temperatures of inlet water, developer, and wash water in connection with monitoring of film processors (Task 543);

   being able to calculate average densities of test films, plot optical density of film types against the log of exposures to obtain the characteristic curve of film batches; being able to evaluate the shapes of the characteristic curves to determine relative speed and contrast of film batches and other parameters (Task 544);

   being able to prepare a calibration chart on which net density is plotted against exposure in mR in connection with calibration when preparing to read exposure from personnel monitoring film or TLD dosimeters (Task 553).

To accomplish these activities the student must have a detailed knowledge of the subject category, covering the appropriate technical or special terms, facts, equipment, and/or procedures which are part of this discipline and are required for successful completion of the activities listed above.

Cross Reference Footnote:
Same scale value appears in level 5.

CURRICULUM OBJECTIVE SHEET Page 1 of 1

Type of Objective Knowledge Factor VI No. 341

Skill or Knowledge Category 65260000 Scale Value 1.5

Occupation Quality Assurance Technician Level 2

Refers to Task Code No(s).: 543

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to demonstrate mastery of the following subject area

Photography and Cinematography

at a level of awareness and depth of understanding adequate to the proper performance of the following activities:

1. Applying details of photography to evaluate whether test films made in monitoring x-ray film processors may be due to light leaks, variations in temperature, or need to replenish processing chemicals (Task 543).

To accomplish these activities the student must have a detailed knowledge of the subject category, covering the appropriate technical or special terms, facts, equipment, and/or procedures which are part of this discipline and are required for successful completion of the activities listed above.

Cross Reference Footnote:
Higher scale value appears in level 5.

CURRICULUM OBJECTIVE SHEET Page 1 of 1

Type of Objective Knowledge Factor IV No. 342
Skill or Knowledge Category 65620000 Scale Value 1.5
Occupation Patient Care Technician Level 2
Refers to Task Code No(s).: 33 156 182

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to demonstrate mastery of the following subject area

Mechanics of Writing English (includes traditional (prescriptive) grammar, punctuation, spelling, bibliographic, and footnote form)

at a level of awareness and depth of understanding adequate to the proper performance of the following activities:

1. Applying details of grammar, punctuation, and spelling in recording condition of wound, or writing orders for medication, or recording what was done in connection with removal of patient's sutures, irrigating, cleaning, and/or dressing a wound, or setting up and using a suction machine (Tasks 33, 156, 182).

To accomplish these activities the student must have a detailed knowledge of the subject category, covering the appropriate technical or special terms, facts, equipment, and/or procedures which are part of this discipline and are required for successful completion of the activities listed above.

Cross Reference Footnotes: See The Following Curriculum Objectives:
Same scale value appears in: 343.
Higher scale value appears in: 344 345.

CURRICULUM OBJECTIVE SHEET Page 1 of 1

Type of Objective Knowledge Factor VI No. 343
Skill or Knowledge Category 65620000 Scale Value 1.5
Occupation Quality Assurance Technician Level 2
Refers to Task Code No(s).: 173 175 178 187 525 529 530 531 532 533 534 535 536 537 538 539 540 543 544 545 548 549 550 556

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to demonstrate mastery of the following subject area

Mechanics of Writing English (includes traditional (prescriptive) grammar, punctuation, spelling, bibliographic, and footnote form)

at a level of awareness and depth of understanding adequate to the proper performance of the following activities:

1. Applying details of grammar, punctuation, and spelling in recording results and evaluation of tests of diagnostic x-ray equipment, and recording what was done to correct problems (all tasks listed).

To accomplish these activities the student must have a detailed knowledge of the subject category, covering the appropriate technical or special terms, facts, equipment, and/or procedures which are part of this discipline and are required for successful completion of the activities listed above.

Cross Reference Footnotes: See The Following Curriculum Objectives:
Same scale value appears in: 342.
Higher scale value appears in: 344 345.

CURRICULUM OBJECTIVE SHEET

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Type of Objective Knowledge Factor III No. 344

Skill or Knowledge Category 65620000 Scale Value 2.5

Occupation Radiologic Technologist Level 3

Refers to Task Code No(s).: 81 353 355 356 357 358 359 360 361 362 363 364 365 366 367 368 370 371 372 373 374 375 376 377 378 379 380 381 382 383 384 385 386 387 388 389 390 463 464 465 466 467 468 491 492 493 494 495 (*continued below)

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to demonstrate mastery of the following subject area

Mechanics of Writing English (includes traditional (prescriptive) grammar, punctuation, spelling, bibliographic, and footnote form)

at a level of awareness and depth of understanding adequate to the proper performance of the following activities:

1. Applying details of grammar, punctuation, spelling, sentence construction, and syntax in recording orders for "retakes" and/or any suggestions for additional views, indicating what is wrong, what adjustments are needed as a part of quality review of "plain film" radiographs (Task 81).

2. In participating in meeting of diagnostic x-ray department technologists, being able to comprehend, raise issues, or participate in any discussion dealing with the recording of evaluations, information, decisions, or written reports in connection with radiographic examinations (Task 353).

3. Applying details of grammar, punctuation, spelling, sentence construction, and syntax in recording the radiographic examination of a patient, including any comments on equipment failure, special care provided for patient, or reasons that any views called for could not be provided (all tasks listed except Tasks 81 and 353).

To accomplish these activities the student must have a detailed knowledge of the subject category, covering the appropriate technical or special terms, facts, equipment, and/or procedures which are part of this discipline and are required for successful completion of the activities listed above.

Cross Reference Footnotes: See The Following Curriculum Objectives:

Lower scale value appears in: 342 343.

Same scale value appears in level 4.

Higher scale value appears in: 345 and level 5.

* 496 497 498 499 500 501 502 503 504 505 506 507 508 509 510 511 512 513 514 515 516 517 518 519 526.

CURRICULUM OBJECTIVE SHEET Page 1 of 1

Type of Objective Knowledge Factor VI No. 345
Skill or Knowledge Category 65620000 Scale Value 3.5
Occupation Quality Assurance Technician Level 2
Refers to Task Code No(s).: 554

Is there Cross Reference? ...Yes(X) ...No( ) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to demonstrate mastery of the following subject area

Mechanics of Writing English (includes traditional (prescriptive) grammar, punctuation, spelling, bibliographic, and footnote form)

at a level of awareness and depth of understanding adequate to the proper performance of the following activities:

1. Applying details of grammar, punctuation, spelling, sentence structure, syntax, paragraph construction, and the structure of reports and letters to compose or adapt form letters to be sent to personnel informing them of unusual radiation dose levels and need for interview; being able to prepare reports on radiation exposure of occupationally exposed individuals for agencies (Task 554).

To accomplish these activities the student must have a detailed knowledge of the subject category, covering the appropriate technical or special terms, facts, equipment, and/or procedures which are part of this discipline and are required for successful completion of the activities listed above.

Cross Reference Footnotes: See The Following Curriculum Objectives:
Lower scale value appears in: 342 343 344.
Higher scale value appears in level 5.

CURRICULUM OBJECTIVE SHEET Page 1 of 3

Type of Objective Procedural Factor IV No. 346
Skill or Knowledge Category Not Applicable (n.a.) Scale Value n.a.
Occupation Patient Care Aide Level 1
Refers to Task Code No(s).: 30 tasks listed below

Is there Cross Reference? ...Yes( ) ...No(X) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to demonstrate the following to a degree of proficiency appropriate to the task situation:

1. Demonstrate the proper sequence of events in each of the tasks listed below (all the tasks for this factor at this level).
2. Properly use all the equipment called for in the tasks below.

To accomplish this, the student must be able to (a) list the proper sequence of events in each task; (b) indicate the possible emergencies or variations to be expected in the task situation, and the proper sequence of events for each eventuality; and (c) demonstrate the proper performance of each task in a predetermined clinical setting or in a clinical simulation.

Task 73	Reassuring any patient and/or accompanying adult about x-ray and/or fluoroscopy procedures.
Task 74	Explaining to any out-patient or accompanying adult proper at-home procedures to follow prior to coming for radiographic or fluoroscopic examination.
Task 98	Obtaining a clean catch urine specimen from any patient and preparing for laboratory.
Task 113	Giving any patient general reassurance.
Task 138	Reporting observed symptoms and concerns of any patient to physician or staff member.
Task 153	Assisting physician or co-worker in special examination or treatment procedures.
Task 155	Obtaining urine specimen on orders.
Task 166	Using isolation and decontamination techniques to prepare examination or treatment room or area and clean up afterwards for patient with infectious or communicable condition.
Task 190	Assisting patient to or from wheelchair, stretcher, bed, or table and/or transporting patient to designated area.
Task 193	Having any patient and materials prepared for special procedure and readying patient for examination.

CURRICULUM OBJECTIVE SHEET (continued) Page 2 of 3

Type of Objective Procedural Factor IV No. 346
Skill or Knowledge Cagegory n.a. Scale Value n.a.

Content Continued

Task 199	Taking and recording vital signs (temperature, pulse, respiration and blood pressure) of any patient.
Task 262	Taking an electrocardiogram of any patient as ordered or determined.
Task 271	Deciding whether to call staff person to evaluate whether unusual ECG reading is artifact, or calling physician in case of serious patient distress.
Task 278	Checking on reasons for nonappearance of in-patients for examinations or treatment.
Task 279	Notifying ward or floor personnel to ready and transport in-patients who are scheduled for specific procedures at specific times.
Task 281	Checking in-patients' identity against patients' treatment and medication check lists; stamping arrival and departure times; attaching cards to patients indicating special conditions.
Task 282	Escorting adult out-patients to and/or from dressing rooms, treatment rooms and/or waiting areas.
Task 283	On orders, deciding whether wound of any patient needing change of dressing needs attention of RN; changing simple dry dressing or reinforcing wet dressing.
Task 287	On orders, placing order for specific dietetic meal; picking up, delivering, and feeding patient if so decided.
Task 289	Bottle feeding a baby with pre-prepared formula.
Task 290	Changing any patient's colostomy bag on orders.
Task 291	Taking and reporting temperature of any non-pediatric patient with oral thermometer on orders.
Task 292	Obtaining and examining fresh stool from any patient and reporting unusual or suspicious appearance, on orders.
Task 295	Participating in meeting of nursing personnel in x-ray department.
Task 301	Diapering a baby.
Task 302	Placing or making call and delivering non-medical message at patient or co-worker's request.
Task 303	Arranging, measuring and recording food intake and excretory output as ordered.

CURRICULUM OBJECTIVE SHEET (continued) Page 3 of 3

Type of Objective Procedural Factor IV No. 346

Skill or Knowledge Cagegory n.a. Scale Value n.a.

Content Continued

Task 490	Mummying or wrapping an infant or young pediatric patient.
Task 520	Preparing any patient and attaching electrodes for electrocardiogram monitoring.
Task 521	Applying digital or manual pressure to any patient's arterial or venous puncture site as ordered.

CURRICULUM OBJECTIVE SHEET

Type of Objective Procedural Factor IV No. 347
Skill or Knowledge Category Not Applicable (n.a.) Scale Value n.a.
Occupation Patient Care Technician Level 2
Refers to Task Code No(s).: 17 tasks listed below

Is there Cross Reference? ...Yes( ) ...No(X) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to demonstrate the following to a degree of proficiency appropriate to the task situation:

1. Demonstrate the proper sequence of events in each of the tasks listed below (all the tasks for this factor at this level).
2. Properly use all the equipment called for in the tasks listed below.

To accomplish this, the student must be able to (a) list the proper sequence of events in each task; (b) indicate the possible emergencies or variations to be expected in the task situation, and the proper sequence of events for each eventuality; and (c) demonstrate the proper performance of each task in a predetermined clinical setting or in a clinical simulation.

Task 18	Drawing blood from any non-pediatric patient's vein on orders.
Task 33	Removing any patient's sutures.
Task 65	Preparing specimens such as extravascular body fluids, washings, cell and/or tissue biopsies for transportation to laboratory.
Task 133	Administering subcutaneous or intramuscular injection for any patient according to MD's orders after having quantity checked.
Task 143	Catheterizing any female urethra as ordered.
Task 156	Irrigating, cleaning, dressing or redressing any patient's wound, burn, or opening for catheter as ordered.
Task 181	Catheterizing any male or female patient's urethra with retention balloon catheter.
Task 182	Setting up and using suction machine to clear airway or to assist with gastric lavage.
Task 185	Administering oxygen from portable or piped outlet unit using oronasal or nasal mask according to MD's orders.
Task 198	Administering medication orally to any patient according to MD's orders after having quantity checked.
Task 243	Restraining any patient.

CURRICULUM OBJECTIVE SHEET (continued) Page 2 of 2

Type of Objective Procedural Factor IV No. 347
Skill or Knowledge Cagegory n.a. Scale Value n.a.

Content Continued

Task 280	Participating in monitoring of personal exposure to radiation by periodically turning in and replacing film strip in badge worn by performer.
Task 296	Providing first aid in x-ray department emergency.
Task 298	Administering medication orally to any patient according to MD's orders.
Task 299	Administering subcutaneous or intramuscular injection for any patient according to MD's orders.
Task 308	Setting up and monitoring any patient's electrocardiogram during special procedure.
Task 522	Applying pressure dressing to arterial or venous puncture site.

CURRICULUM OBJECTIVE SHEET

Page 1 of 3

Type of Objective Knowledge Factor VI No. 348

Skill or Knowledge Category Not Applicable (n.a.) Scale Value n.a.

Occupation Quality Assurance Aide Level 1

Refers to Task Code No(s).: 41 tasks listed below

Is there Cross Reference? ...Yes( ) ...No(X) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to demonstrate the following to a degree of proficiency appropriate to the task situation:

1. Demonstrate the proper sequence of events in each of the tasks listed below (all the tasks for this factor at this level).

2. Properly use all the equipment called for in the tasks listed below.

3. Properly apply arithmetic in using symbolic skills.

To accomplish this, the student must be able to (a) list the proper sequence of events in each task; (b) indicate the possible emergencies or variations to be expected in the task situation, and the proper sequence of events for each eventuality; and (c) demonstrate the proper performance of each task in a predetermined clinical setting or in a clinical simulation.

Task	8	Shutting down computerized transverse axial scanning equipment.
Task	69	Processing exposed x-ray film in automatic processor.
Task	70	Inspecting, cleaning and readying x-ray film hand processing equipment for use.
Task	71	Processing exposed x-ray film manually.
Task	72	Loading x-ray film cassette(s), nonscreen film holder(s), box(es), and/or roll film cartridges.
Task	79	Preparing barium sulfate contrast medium as ordered or for standard use.
Task	80	Preparing materials or trays with medications and materials for special treatments or procedures according to standard orders.
Task	95	Testing a urine sample by tablet or dipstick method and recording.
Task	134	Logging and/or tallying patient services and/or instructional case record materials for use in record keeping, billing or instruction.
Task	135	Cleaning an examination or treatment room after use.
Task	136	Checking and storing order for non-narcotic drugs and/or supplies.

CURRICULUM OBJECTIVE SHEET (continued) Page 2 of 3

Type of Objective Procedural Factor VI No. 348

Skill or Knowledge Cagegory n.a. Scale Value n.a.

Content Continued

Task 137	Delivering prepared specimens or cultures to lab or incubator.
Task 145	Preparing treatment or examination equipment for sterilization in autoclave.
Task 147	Preparing or changing technique charts for specific x-ray and fluoroscopic equipment on orders.
Task 163	Filling out institutional report form (such as for cancellation) as ordered by MD.
Task 164	Filling out patient identification information on labels and forms in anticipation of need or as requested.
Task 167	Inspecting and cleaning intensifying screens in cassette holders.
Task 180	Preparing blood samples for the laboratory.
Task 184	Relocking equipment box(es) with breakaway lock.
Task 192	Inspecting, checking, preparing xeroradiography equipment for use.
Task 222	Making photocopies of documents, collating, and stapling.
Task 223	Making up unoccupied bed or stretcher bed.
Task 227	Checking for presence and condition of emergency supplies in proper locations; and restocking as needed.
Task 260	Preparing a hypodermic needle with injection dosage on orders.
Task 264.	Ordering duplicate copies of forms, records, or documents.
Task 267	Processing exposed Polaroid x-ray film with Polaroid automatic processing equipment.
Task 269	Loading empty cassette with Polaroid x-ray film.
Task 273	Cleaning, inspecting and readying automatic x-ray film processor(s) for use.
Task 274	Adding predetermined instruments and supplies to prepared procedure trays.
Task 275	Preparing radiographic subtraction prints.
Task 284	Checking presence and functioning of oxygen and/or suction equipment, and amounts of oxygen.

CURRICULUM OBJECTIVE SHEET (continued) Page 3 of 3

Type of Objective Procedural Factor VI No. 348

Skill or Knowledge Cagegory n.a. Scale Value n.a.

Content Continued

Task 285	Checking for presence of emergency supplies in proper locations.
Task 286	Filling out standard order for linen; picking up, folding and storing.
Task 288	Filling out and delivering standard order for food items for department; picking up, and placing food for storage.
Task 297	Obtaining and checking keypunch control card for serial cassette changer as ordered.
Task 300	Checking and submitting accumulated patient's treatment and medication check lists for in and out time stamps.
Task 304	Readying emergency cart.
Task 319	Applying print coater to photographs.
Task 354	Obtaining patient records for use in examination, procedure, treatment or conference.
Task 551	Preparing personnel radiation monitoring dosimetric film or TLD badges and distributing.
Task 552	Collecting and/or distributing personnel monitoring dosimetric badge inserts and preparing for outside or in-house processing and reading.

CURRICULUM OBJECTIVE SHEET Page 1 of 3

Type of Objective Procedural Factor VI No. 349
Skill or Knowledge Category Not Applicable (n.a.) Scale Value n.a.
Occupation Quality Assurance Technician Level 2
Refers to Task Code No(s).: 32 Tasks listed below

Is there Cross Reference? ...Yes( ) ...No(X) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to demonstrate the following to a degree of proficiency appropriate to the task situation:

1. Demonstrate the proper sequence of events in each of the tasks listed below (all the tasks for this factor at this level).

2. Properly use all the equipment called for in the tasks listed below.

3. Properly apply arithmetic in using symbolic skills, algebra, and descriptive statistics.

To accomplish this, the student must be able to (a) list the proper sequence of events in each task; (b) indicate the possible emergencies or variations to be expected in the task situation, and the proper sequence of events for each eventuality; and (c) demonstrate the proper performance of each task in a predetermined clinical setting or in a clinical simulation.

Task 78	Checking and jacketing patient's radiographs, ultrasonograms, and/or C.T.T. scans with requisition sheets and prior diagnostic materials and placing for filing or interpreting.
Task 173	Checking accuracy of x-ray machine timers (except phototimers) with spinning top test.
Task 175	Performing penetrometer calibration test of kVp or mA selectors of x-ray machine output.
Task 178	Checking, preparing fluoroscope controls (and phototimer).
Task 187	Checking cassettes for proper film-screen contact.
Task 276	Making minor adjustments or repair on automatic x-ray film processor.
Task 280	Participating in monitoring of personal exposure to radiation by periodically turning in and replacing film strip in badge worn by performer.
Task 523	Preparing computerized transverse axial tomography (C.T.T.) equipment for use.

CURRICULUM OBJECTIVE SHEET (continued) Page 2 of 3

Type of Objective Procedure Factor VI No. 349

Skill or Knowledge Cagegory n.a. Scale Value n.a.

Content Continued

Task 524	Providing preventive maintenance for display tube surface, camera, disc and/or tape drive units, and/or scanning assembly (especially water-using head box assembly) of computerized transverse axial tomography (C.T.T.) equipment.
Task 525	Checking calibration and accuracy of C.T.T. equipment by making test scans.
Task 527	Retrieving, displaying and making photographs, printouts and/or magnetic tape records of computerized transverse axial tomographic (C.T.T.) scans.
Task 529	Checking x-ray field limitation, x-ray receptor and light field alignment, minimum TOD, TFD and field size indicators for diagnostic x-ray equipment.
Task 530	Checking fluoroscopic and spot film x-ray field limitation, x-ray field and image receptor alignment, maximum TID, minimum TOD, and other requirements.
Task 531	Testing whether diagnostic x-ray tube overload protection and/or effective focal spot size meet acceptable standards.
Task 532	Checking and/or performing direct calibration tests of diagnostic radiography equipment exposure timers.
Task 533	Checking automatic exposure termination of diagnostic radiography equipment.
Task 534	Providing visual and radiographic or fluoroscopic inspection of personnel shielding devices such as leaded gloves, aprons, sheets, gonadal shields.
Task 535	Performing calibration tests of kVp, mA mAs, exposure rates, reproducibility on diagnostic radiography equipment using direct measuring instruments and/or radiographic comparisons.
Task 536	Providing visual and/or manual inspection of diagnostic radiography system.
Task 537	Checking diagnostic tomography x-ray equipment for mechanical operation, fulcrum position, resolution, exposure uniformity and/or grid alignment.
Task 538	Estimating HVL and checking adequacy of filtration of diagnostic x-ray equipment.

CURRICULUM OBJECTIVE SHEET (continued) Page 3 of 3

Type of Objective Procedural Factor VI No. 349

Skill or Knowledge Cagegory n.a. Scale Value n.a.

Content Continued

Task 539	Checking bucky grid alignment and/or centering in diagnostic radiography equipment.
Task 540	Checking fluoroscopic automatic brightness control system and/or focus, resolution and distortion of the optical system.
Task 543	Monitoring and evaluating x-ray film processors.
Task 544	Determining exposure characteristics of x-ray and/or dosimetric films.
Task 545	Monitoring patient exposure rates for routine diagnostic x-ray procedures.
Task 548	Checking maximum entrance exposure rate and primary barrier transmitted radiation rate for fluoroscopic equipment.
Task 549	Checking the leakage radiation rate from the source assembly of diagnostic x-ray equipment.
Task 550	Conducting protection survey of stray radiation within diagnostic x-ray installation and transmission across primary and secondary protective barriers.
Task 553	Reading and recording exposure from personnel monitoring film or thermoluminescent dosimeters.
Task 554	Entering, evaluating occupational radiation exposure data and initiating action on dangerous levels.
Task 556	Calibrating diagnostic x-ray test, survey, or measuring instruments.

CURRICULUM OBJECTIVE SHEET Page 1 of 5

Type of Objective Procedural Factor III No. 350
Skill or Knowledge Category Not Applicable (n.a.) Scale Value n.a.
Occupation Radiologic Technologist Level 3
Refers to Task Code No(s).: 75 tasks listed below

Is there Cross Reference? ...Yes( ) ...No(X) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to demonstrate the following to a degree of proficiency appropriate to the task situation:

1. Demonstrate the proper sequence of events in each of the tasks listed below (all the tasks for this factor at this level).
2. Properly use all the equipment called for in the tasks listed below.
3. Properly apply arithmetic in using symbolic skills and algebra.

To accomplish this, the student must be able to (a) list the proper sequence of events in each task; (b) indicate the possible emergencies or variations to be expected in the task situation, and the proper sequence of events for each eventuality; and (c) demonstrate the proper performance of each task in a predetermined clinical setting or in a clinical simulation.

Task 81	Providing technical quality review of "plain film" radiographs.
Task 280	Participating in monitoring of personal exposure to radiation by periodically turning in and replacing film strip in badge worn by performer.
Task 353	Participating in meeting of diagnostic x-ray department technologists.
Task 355	Taking plain film radiographs of fingers, hand(s) or wrist(s) of non-infant patient.
Task 356	Taking plain film radiographs of forearm and/or elbow joint of non-infant patient.
Task 357	Taking plain film radiographs of humerus and/or shoulder girdle of non-infant patient.
Task 358	Taking plain film radiographs of toes, foot and/or ankle joint of non-pediatric patient.
Task 359	Taking plain film radiographs of leg(s), knee(s) and/or femur(s) of non-infant patient.
Task 360	Taking plain film radiographs of pelvis, hips and/or upper femora of non-infant patient.

CURRICULUM OBJECTIVE SHEET (continued) Page 2 of 5

Type of Objective Procedural Factor III No. 350

Skill or Knowledge Cagegory n.a. Scale Value n.a.

Content Continued

Task 361 Taking plain film radiographs of vertebral column of non-infant patient.

Task 362 Taking plain film radiographs of sternum, ribs and/or thoracic viscera of non-infant patient.

Task 363 Taking plain film radiographs of abdominal contents of non-infant patient.

Task 364 Taking radiographs of anterior portion of the neck of non-infant patient.

Task 365 Taking plain film radiographs of the skull and/or face of non-infant patient.

Task 366 Taking plain film radiographs of the paranasal sinuses of a non-infant patient.

Task 367 Taking preliminary localization radiographs of foreign bodies in orbit or eye of non-infant patient.

Task 368 Taking mammograms (radiography or xeroradiography) of non-infant patient.

Task 369 Preparing, transporting, setting up and returning mobile portable radiography equipment for bedside radiography.

Task 370 Taking operative orthopedic radiographs of any patient (such as in hip pinning).

Task 371 Taking operative cholangiograms, pancreatograms or similar operative radiographs of any patient.

Task 372 Taking intravisceral or isolated operating room radiographs of any patient.

Task 373 Taking operating room radiographs for opaque foreign body search.

Task 374 Taking tomograms of non-infant patient.

Task 375 Taking sialograms of any patient.

Task 376 Taking lymphangiograms or lymphadenograms of any patient.

Task 377 Taking positive contrast arthrograms (especially of knee) of any patient.

Task 378 Taking bronchograms of a non-pediatric patient.

CURRICULUM OBJECTIVE SHEET (continued) Page 3 of 5

Type of Objective Procedural Factor III No. 350
Skill or Knowledge Cagegory n.a. Scale Value n.a.

Content Continued

Task 379	Carrying out radiologic technology for bronchoscopy or needle lung biopsy of a non-pediatric patient.
Task 380	Providing technical assistance for laryngography or cleft palate study of any patient (or any similar fluoroscopic examination including spot filming and/or cineradicgraphy).
Task 381	Taking upper GI radiographs of non-pediatric patient.
Task 382	Taking small intestine intubation radiographs of a non-pediatric patient.
Task 383	Taking barium enema radiographs of non-pediatric patient.
Task 384	Taking oral cholecystograms and cholangiograms of non-infant patient.
Task 385	Taking intravenous cholangiograms and cholecystograms of non-infant patient.
Task 386	Taking percutaneous or T-tube cholangiograms of non-infant patient.
Task 387	Taking intravenous pyelograms and urograms of non-pediatric patient.
Task 388	Taking infusion nephrotomograms of any patient.
Task 389	Taking percutaneous antegrade or renal cyst pyelograms of non-infant patient.
Task 390	Taking cystograms and voiding cystourethrograms of any patient.
Task 463	Taking retrograde pyelograms and ureterograms of non-pediatric patient.
Task 464	Providing technical assistance for an examination of any patient requiring fluoroscopic control and spot filming.
Task 465	Taking pelvic pneumograms and/or hysterosalpingograms of non-pediatric female patient.
Task 466	Taking radiographs of a pregnant patient's abdomen for fetography, amniography, placentography.
Task 467	Taking radiographs of a pregnant patient's uterus for intrauterine transfusion.
Task 468	Taking radiographs of a pregnant patient's pelvis for Colcher-Sussman pelvimetry.

CURRICULUM OBJECTIVE SHEET (continued) Page 4 of 5

Type of Objective Procedural Factor III No. 350

Skill or Knowledge Cagegory n.a. Scale Value n.a.

Content Continued

Task 491 Taking plain film radiographs of the skull of infant patient.

Task 492 Taking plain film radiographs of vertebral column of infant patient.

Task 493 Taking plain film radiographs of the upper extremities of infant patient.

Task 494 Taking radiographs of neck, chest of infant patient.

Task 495 Taking plain film radiographs of abdomen of infant patient.

Task 496 Taking plain film radiographs of the lower extremities of infant or pediatric patient.

Task 497 Taking radiographs for choanal atresia study of infant patient.

Task 498 Taking bronchograms of a pediatric pateint.

Task 499 Taking upper GI radiographs of pediatric patient.

Task 500 Taking barium enema, intussusception or defecography radiographs of pediatric patient.

Task 501 Taking percutaneous peritoneograms/herniograms of pediatric patient.

Task 502 Taking excretory intravenous inferior vena cavograms and urograms of pediatric patient.

Task 503 Taking genitograms or fistulograms of any patient for intersex, external fistula or sinus tract examination.

Task 504 Taking cerebral angiograms or venograms of any patient.

Task 505 Taking pneumoencephalograms or brain ventriculograms of any patient.

Task 506 Taking positive contrast spinal or posterior fossa myelograms of any patient.

Task 507 Taking diskograms of any patient.

Task 508 Taking air or gas contrast myelograms of any patient.

Task 509 Taking spinal cord angiograms of any patient.

Task 510 Taking peripheral angiograms of any patient (after percutaneous needle or catheter entry, translumbar puncture, ascending or descending venous entry).

CURRICULUM OBJECTIVE SHEET (continued) Page 5 of 5

Type of Objective Procedural Factor III No. 350

Skill or Knowledge Cagegory n.a. Scale Value n.a.

Content Continued

Task 511 Taking catheter thoracic and/or abdominal aortograms of any patient, and/or selective visceral arteriograms (bronchial or abdominal).

Task 512 Taking selective pelvic angiograms of non-pediatric gravid or nongravid female patient.

Task 513 Taking intravenous angiocardiograms of any patient.

Task 514 Taking selective thyroid angiograms of any patient.

Task 515 Taking catheter inferior vena cavograms and/or renal or adrenal venograms of non-infant patient.

Task 516 Taking percutaneous splenoportograms of any patient.

Task 517 Taking selective subclavian arteriograms of non-pediatric patient for thoracic outlet syndrome evaluation.

Task 518 Taking selective pulmonary angiograms or selective angiocardiograms of any patient.

Task 519 Taking percutaneous coronary arteriograms and/or left ventriculograms of any pateint.

Task 526 Taking computerized transverse axial tomographic (C.T.T.) scans of any patient.

CURRICULUM OBJECTIVE SHEET Page 1 of 2

Type of Objective Knowledge Factor A No. 351

Skill or Knowledge Category Not Applicable (n.a.) Scale Value n.a.

Occupation Administrative Technologist Level 3

Refers to Task Code No(s).: 11 tasks listed below

Is there Cross Reference? ...Yes( ) ...No(X) If yes, see footnote(s).

Content: A graduate of the program at this educational level must be able to demonstrate the following to a degree of proficiency appropriate to the task situation:

1. Demonstrate the proper sequence of events in each of the tasks listed below (all the tasks for this factor at this level).

2. Properly use all the equipment called for in the tasks listed below.

To accomplish this, the student must be able to (a) list the proper sequence of events in each task; (b) indicate the possible emergencies or variations to be expected in the task situation, and the proper sequence of events for each eventuality; and (c) demonstrate the proper performance of each task in a predetermined clinical setting or in a clinical simulation.

Task 76 Checking supplies and ordering non-drug materials needed by department.

Task 128 Checking supply of narcotics or regulated drugs (or witnessing count); reordering, picking up, and restocking.

Task 129 Checking supply and ordering non-narcotic medicinals needed by department.

Task 131 Making assignments of staff to work areas, procedures, and/or MD's and/or vacations and lunch hours.

Task 132 Requesting repair, replacement or other services of another hospital department orally and/or filling out requisition.

Task 165 Keeping attendance records and recording or reporting excessive lateness and/or absenteeism.

Task 186 Orienting new staff member(s) to departmental standard operating and administrative procedures, floor plan, location of equipment and supplies, record keeping.

Task 272 Preparing and adjusting schedules for patient procedures.

Task 277 Assigning scheduled patients to procedure rooms in appropriate order.

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Type of Objective Procedural Factor A No. 351

Skill or Knowledge Cagegory n.a. Scale Value n.a.

Content Continued

Task 293 Attending personal meeting with supervisor on functioning or personal, work-related problems.

Task 294 Assigning subordinate and explaining assignment to transport patient, obtain materials or documents, or assist co-worker.